

Kachina Village AREA PLAN



An Amendment to the Coconino County Comprehensive Plan

**Developed by the Residents of the Kachina Village Community
with assistance of the County Community Development Department**

Approved by the Coconino County Board of Supervisors September 15, 1997

KACHINA VILLAGE AREA PLAN

Approved by
Kachina Village Planning Committee May 21, 1997
Planning and Zoning Commission July 29, 1997
Board of Supervisors September 15, 1997

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INTRODUCTION

On December 4, 1995, the Coconino County Board of Supervisors appointed a citizens' committee to develop a special area plan for Kachina Village. The Kachina Village Planning Committee was comprised of twelve property owners from the community who responded to a request by the Board of Supervisors for residents interested in participating in a planning process to help shape future development in Kachina Village. The committee held their first meeting on December 19, 1995 at the Kachina Village Fire Station, and met twice a month for the following 17 months through May, 1997.

Purpose and Scope

The purpose of the *Kachina Village Area Plan* is to ensure that future development in the area is in the interest of public health, safety, and welfare, that it is not detrimental to the established character of the community, and that it preserves or enhances the special characteristics that define Kachina Village. More specifically, the plan serves as an amendment to the *Coconino County Comprehensive Plan*, and guides the decision-making processes of the Planning and Zoning Commission and Board of Supervisors in their consideration of zone changes, subdivisions, conditional use permits, and other development-related proposals.

The plan does not identify specific land uses for specific locations, but sets forth goals and policies designed to protect the special characteristics of the community, while allowing for orderly, well-planned, and appropriate development.

The geographic area covered by the plan extends beyond the core community of Kachina Village to include national forest lands to the south and west, as well as public and private lands north of the community (see Map 1). Although the County has limited jurisdiction on national forest lands, the Forest Service has expressed a willingness to work collaboratively with the County and the community to accomplish natural resource goals in the wildland/urban interface. While ultimate authority over national forest lands remains with the Forest Service, this plan contains several policies addressing forest management issues in a spirit of partnership and collaboration.

The plan has no fixed time period, but is intended to be applicable for approximately ten years. The plan may be amended periodically, as needed. During the life of the plan, any affected party may request amendments to the plan, which would be considered by the Planning and Zoning Commission and Board of Supervisors through a public hearing process much like a zone change or other development proposal. Eventually, if conditions change sufficiently to warrant a major rewrite of the plan, the Board will most likely appoint another citizens' committee to accomplish that task.

The Planning Process

The planning process began with the appointment of a citizens' planning committee by the Board of Supervisors in December, 1995. The committee was originally comprised of twelve property owners. One member resigned early in the process, and the bulk of the work was conducted by the remaining eleven members. The Planning and Zoning Division of the Coconino County Department of Community Development provided planning staff.

The first task accomplished by the planning committee was identification of planning issues. The issues included roads and related transportation issues, water, wastewater and other utilities, law enforcement, fire protection, parks and recreation, schools, community facilities, housing, land use, future development, zoning enforcement, forest management, and a variety of natural resource issues. The second task was determination of the study area boundaries (see Map 1).

The next phase of the planning process was the gathering of information to document existing conditions and trends related to each of the planning issues. Concurrently with the information-gathering process, a community survey was mailed out to obtain public input. After the information-gathering was completed and the results of the community survey received, a draft plan was formulated over a period of several months, and approved by the Kachina Village Planning Committee on May 21, 1997. The draft plan was approved by the Planning and Zoning Commission at a public hearing on July 29, 1997, and by the Board of Supervisors at a subsequent public hearing on September 15, 1997.

Community Participation

Community participation in the planning process included public attendance at planning committee meetings, widespread response to the community survey, and participation in a community visioning session held on August 8, 1996. Attendees at the planning committee meetings were placed on a mailing list, and received agendas and minutes for all subsequent meetings. Additional public input was received at public hearings held by the Planning and Zoning Commission and Board of Supervisors prior to final approval.

A high rate of response was received from the community survey, which was mailed out to all property owners and customers of Kachina Village Utilities. A total of 566 completed surveys were returned, which amounted to 42% of the 1,363 surveys mailed. The results of the survey are contained in Appendix A of this plan.

The visioning session attracted approximately 50 residents who participated directly in drafting statements that ultimately were incorporated into the *Kachina Village Vision Statement* contained in this plan. The *Vision Statement* serves as a guide upon which the goals and policies of the plan are based.

Implementation

The *Coconino County Zoning Ordinance* and *Subdivision Ordinance* are the primary tools available for implementing County plans. Both ordinances include requirements that the Planning and Zoning Commission and Board of Supervisors must make certain findings of fact in order to approve zone changes, conditional use permits, and subdivisions. One finding of fact required for approval of all such development proposals is that the proposal is consistent with the goals, objectives and policies of the *Coconino County Comprehensive Plan* and any specific plan for the area. The *Kachina Village Area Plan* contains specific goals and policies related to future development in the study area, and serves as the official guide for future decisions by the Planning and Zoning Commission and Board of Supervisors.

Most development approvals are accompanied by conditions of approval to address certain permit requirements, site improvements, and property development standards. The conditions of approval further serve as a mechanism to ensure compliance with the policies of the *Comprehensive Plan* and *Area Plan*. Implementation of the *Design Review Guidelines* contained in Appendix C is intended to ensure that approved multiple family developments, and commercial, industrial, and public and semi-public uses conform to the policies of the plan.

In addition to development proposals, the goals and policies of the *Area Plan* should be considered by the Board of Supervisors as they make other administrative decisions affecting the study area, and as they direct the various County departments in their respective administrative functions. Ideally, such departments as Parks and Recreation, the Highway Department, and others, will help implement relevant policies as opportunities arise.

Representatives of the Mormon Lake Ranger District of the Coconino National Forest have also expressed an interest in developing partnerships and working collaboratively with the community to accomplish natural resource goals and objectives in the study area consistent with the policies of this plan. Future forest planning and decision-making processes on forest lands in the study area will consider policies in the *Area Plan*, as well as additional public input from the community and other affected parties.

KACHINA VILLAGE VISION STATEMENT

NOTE: The following *Vision Statement* is an expression of the desired future of Kachina Village. It was drafted by residents of Kachina Village at a visioning session held on August 8, 1996 at the Kmetko Center in the main fire station. The *Kachina Village Area Plan* will not solve all the problems of the community, but the goals and policies in the *Area Plan* are intended to help move toward the desired future expressed in the *Vision Statement*.

KACHINA VILLAGE IS A UNIQUE FAMILY-ORIENTED COMMUNITY COMPRISED OF SAFE NEIGHBORHOODS WHERE RESIDENTS TAKE PRIDE IN THEIR HOMES AND PROPERTY AND ENJOY AN EXCELLENT QUALITY OF LIFE FOR THEIR FAMILIES AND CHILDREN.

THE COMMUNITY OFFERS A WIDE RANGE OF HOUSING STYLES AND OPTIONS FOR A DIVERSE POPULATION INCLUDING RESIDENTS OF VARIED ETHNIC AND CULTURAL BACKGROUNDS, AGE GROUPS, ECONOMIC STATUS, AND LIFESTYLES. PERMANENT AND SEASONAL RESIDENTS ALIKE INHABIT A LIVELY COMMUNITY THAT MEETS THEIR NEEDS AS A PLACE TO RAISE A FAMILY OR SEEK A RURAL REFUGE.

SITUATED IN A FOREST SETTING, THE NATURAL ENVIRONMENT IS A HIGHLY IMPORTANT QUALITY OF KACHINA VILLAGE. THE PRESERVATION OF NATURAL VEGETATION, RIPARIAN AND WETLAND AREAS, OPEN SPACE, AND AIR QUALITY IS A HIGH PRIORITY. ACCESS TO ADJACENT COCONINO NATIONAL FOREST LANDS IS AN IMPORTANT AMENITY ENJOYED BY RESIDENTS, AND THE COMMUNITY IS AN ACTIVE PARTNER WITH THE FOREST SERVICE IN IDENTIFYING APPROPRIATE MANAGEMENT STRATEGIES FOR NEARBY FOREST LANDS.

KACHINA VILLAGE IS ACCESSIBLE TO SAFE, EFFICIENT TRANSPORTATION OPTIONS BOTH WITHIN THE COMMUNITY AND CONNECTING TO SURROUNDING AREAS. RESIDENTS ENJOY SAFE, WELL-MAINTAINED INTERIOR STREETS AND PEDESTRIAN PATHWAYS, AS WELL AS LINKS TO REGIONAL TRAIL NETWORKS AND FOREST ROADS AND CONVENIENT ACCESS TO THE SERVICES AND AMENITIES FOUND IN THE NEARBY CITY OF FLAGSTAFF. IN ADDITION TO MOTOR VEHICLE TRANSPORTATION, A RANGE OF OPTIONS EXIST FOR FOOT TRAVEL, BICYCLING, EQUESTRIAN USE, AND CONVENIENT ACCESS TO PUBLIC TRANSPORTATION.

A LOW TO MODERATE LEVEL OF COMMERCIAL DEVELOPMENT OCCURS IN KACHINA VILLAGE. AS NEW DEVELOPMENT OCCURS, IT IS COMMUNITY-ORIENTED, AND IS CONSISTENT WITH THE CHARACTER OF ESTABLISHED NEIGHBORHOODS.

UTILITY INFRASTRUCTURE

Water

The water supply and distribution system for Kachina Village is operated by the Kachina Village Improvement District (KVID). KVID was established in April, 1965 by order of the Coconino County Board of Supervisors. The District was formed as a county improvement district under Arizona Revised Statutes 11-701, and the Board of Supervisors acts as the Board of Directors of the District. The District is funded by special district taxes and assessments and water and sewer fees paid by the property owners.

The water system includes three wells, three booster stations, four storage reservoirs, approximately 88,000 feet of water main, and is divided into two pressure zones, north and south. The north zone includes one well, one booster station, and two storage reservoirs. The south zone includes two wells, two booster stations, and two reservoirs. The total current maximum water production capacity is 388,000 gallons per day (gpd). Well No. 4, located in the north zone, is being developed as this report is being written. During the summer, average water usage is approximately 275,000 gpd, and during the winter, average usage is 200,000 gpd. A peak usage of 384,000 gpd was the single highest use day on record.

There is a limited amount of historical information available regarding the construction and development of the system because of a lack of records from that time period. Based on the limited records that are available, it appears that the original wells and water lines were constructed between 1965 and 1972 by the original developer of Kachina Village. Most of the facilities were constructed to standards that do not meet current requirements. In fact, it appears that many of the facilities were not constructed according to plans or standards of that time period either. Many of the “as-built” plans on record are inaccurate, which creates problems in servicing and maintenance of the system. Ongoing inspection and maintenance of the system is gradually enhancing KVID staff’s knowledge of the location and condition of the facilities.

In the 1980s, KVID was required to make some major improvements to the water and wastewater systems because of several state orders for compliance with current water and sewer standards. Water system improvements included rehabilitation of Well No. 2 and construction of Booster Station No. 2 and a 50,000 gallon storage tank in 1988-1989. The costs were paid by the property owners as special district assessments.

In 1993, KVID began developing a *Capital Improvement Plan* (CIP) to identify, schedule, and estimate the costs of major capital improvement projects for the water and wastewater systems for the next 20 years. One of the first steps in the CIP process was to determine the likely level of future growth and development in the district. Three alternatives, low, moderate and high growth, were evaluated and considered by the Board of Directors.

The low growth alternative was based on the 1,540 water and sewer assessments assigned in 1987. The peak population would be 4,250, and no significant additional commercial development is anticipated.

The moderate growth alternative was based on maximum build-out under the current zoning classifications. The peak population would be 4,700, and an additional 160 water and sewer connections over the low growth alternative would be required for a total of 1,700 equivalent residential connections. Under this alternative, more intensive development than is possible under the low growth alternative could occur on properties currently zoned for multiple family residential (RM-10/A), mobile home park (MHP), and commercial (CG-10,000). Additional commercial development could include a restaurant, motel, and laundromat.

The high growth alternative was based on more intensive development than is possible under current zoning. It anticipates higher residential densities along Pumphouse Wash and Dolan Meadow, and more intensive commercial development along Tovar Trail. The peak population would be 5,300, and an additional 220 equivalent connections over the moderate growth alternative would be required for a total of 1,920 equivalent connections.

Public input was obtained from several public meetings and a survey of property owners and KVID customers. The results indicated an overwhelming preference for the low growth alternative. Final results of the survey were 163 in favor of low growth, 24 in favor of moderate growth, and one in favor of high growth. Based on these results and cost comparisons of new capital facilities required for the three alternatives, the Board directed that the CIP be based on the low growth alternative. The CIP was approved by the Board in June, 1994.

There are a total of 1,540 equivalent residential water and sewer connections available based on the 1987 water and sewer assessments. There are currently 1,350 active accounts. There were 41 new connections in 1995, and approximately 20 new connections in the first nine months of 1996. There are approximately 100 unbuilt platted lots in the District, and several larger unplatted parcels with various numbers of assessments assigned to them. Any development scenario beyond the low growth alternative will require an updated analysis of the water and wastewater systems' capacities to determine if additional infrastructure improvements are needed beyond those currently identified in the CIP.

The majority of respondents to the 1996 *Kachina Village Community Survey* were generally very satisfied with water service provided by KVID.

Fire Flows

Although there is no legal mandate for a water company to provide a storage and delivery system that will meet necessary fire flows in a community, it has been the intent and direction of KVID to continually make improvements to the water system. The *Uniform Fire Code* (UFC) has

established a minimum fire flow requirement of 1,000 gallons per minute (gpm) for a duration of two hours. It has generally been recognized through engineering studies and fire flow testing of the system that the water system is incapable of meeting this standard. Due to the fact that no agency of authority has adopted the UFC, this minimum standard is not in force, but it should be generally understood that this is a minimum standard, and future capital improvements of KVID should keep this standard as a future goal.

Areas that present the biggest problem for fire flow are Mesa loop and Kweo hill. Poor characteristics of the Mesa loop area include low total output flows. However, these flows do remain fairly constant. The south zone has good initial flows, but those flows cannot be sustained because of main sizes and elevation differences. These problems will continue to be a challenge for KVID in the future, because of insufficient water main sizes and elevation differences throughout Kachina Village.

Wastewater

The wastewater system for Kachina Village is also operated by KVID. The original wastewater system was constructed in the late 1960s and early 1970s. In 1984, the United States Environmental Protection Agency (EPA) filed suit against KVID for violations of their NPDES (National Pollution Discharge Elimination System) permit. KVID had been discharging effluent into Harrenburg Wash just upstream from the confluence with Pumphouse Wash, which is a tributary to Oak Creek. Oak Creek was designated a unique waterway, which required more stringent water quality standards, and the original wastewater treatment plant could not meet the new standards.

A new wastewater treatment plant was constructed in 1988. The new facilities include an extended aeration treatment plant and a constructed wetlands habitat project for disposal of effluent. Construction of the new plant was authorized by a Petition to Incur Expenses signed by a majority of the property owners in the District. The EPA provided \$2 million of the total \$5.6 million cost in the form of a construction grant. The remainder was paid by property owners as a special district assessment.

The new treatment plant provides reliable service and is presently in substantial compliance with state and federal regulations. Arizona Department of Environmental Quality (ADEQ) recognizes three levels of compliance. "In compliance" means absolutely no infractions or problems whatsoever. "In substantial compliance" means there are some minor problem areas, but the operator is taking adequate steps to resolve the problems. "Out of compliance" means there are serious violations. The Kachina Village wastewater system is considered to be in substantial compliance with inflow and infiltration (I&I) being the main problem area at this time. Inflow and infiltration (I&I) of stormwater run-off into the sanitary sewer system has been an ongoing problem. The CIP proposes a 10-year program of cleaning, television inspection, smoke testing, and repair. The system includes approximately 100,000 feet of sewer line. Under the 10-year

program proposed by the CIP, 10,000 feet of sewer line would be cleaned, inspected and repaired each year. In practice, KVID has altered the sequence somewhat, and embarked on a more aggressive television inspection program of the entire system in order to identify the worst sources of I&I, and prioritize repairs accordingly. Television inspection of the entire system is approximately 90 to 95 percent complete. A priority repair program has been established whereby sources of I&I are prioritized for repair on a 1-10 scale by KVID staff, and the most highly rated problem areas are repaired first. KVID's annual budget includes a certain amount for sewer line inspection and repair, and the prioritized repairs are accomplished to the extent that funds are available. The budget for FY 1996 included \$115,000 for sewer inspection and repair. Approximately \$30,000 was spent on inspection, and the remainder on repairs resulting in substantial progress in repairing sources of I&I.

The wetlands project has been very successful as an effluent disposal facility as well as a wildlife habitat project. It continues to evolve with cooperation and support from Northern Arizona University, the Arizona Game and Fish Department, the Arizona Land Department, and Ducks Unlimited. Trails throughout the wetlands project are used regularly by residents for walking, jogging and bird watching, as well as by the public schools as a living laboratory for environmental education. See the *Natural Resources and Environmental Quality* element for further discussion of the wetlands project.

Other Utilities

Electric service is provided by Arizona Public Service (APS). The majority of the community is serviced by overhead lines with the exception of a small portion of the south end of the Village where all utilities are underground.

Telephone service is provided by U. S. West, and cable television is provided by Cablecomm.

Natural gas is not available in the community. In 1996, Citizens Utilities conducted a feasibility study regarding natural gas service to Kachina Village. Based on the results of the study, Citizens Utilities' local office recommended that service be extended to Kachina Village. However, when compared to other projects state-wide, a higher corporate level decision eliminated the project from the 1997 budget. Proposed new development in Forest Highlands may cause Citizens to re-evaluate the project. Discussions are underway between the developers of the Forest Highlands project and the utility company at the time of the writing of this report. Based on development patterns in the area, it seems likely that natural gas will be extended to the area eventually, but it is unknown exactly when that will occur.

UTILITY INFRASTRUCTURE GOALS

1. To maintain a sustainable and reliable water supply and distribution system for domestic use and fire protection.

2. To maintain an environmentally sensitive and compatible wastewater treatment and disposal system.
3. To minimize visual and aesthetic impacts of future installations of utility infrastructure.
4. To promote sustainable practices and methods of efficient water and energy usage.

UTILITY INFRASTRUCTURE POLICIES

1. Verification of an adequate water supply for domestic use and fire protection shall be required prior to approval of all zone changes and developments requiring Commission or Board action. Such verification shall be provided by the applicant or developer.
2. Water conservation measures shall be included in all development proposals requiring Commission or Board approval. Such measures may include, but are not limited to, the use of reclaimed water for nonpotable uses, low flow water fixtures, and xeriscape landscaping.
3. Kachina Village Utilities and the Coconino County Building Division are encouraged to actively promote water conservation retrofits in existing dwellings (i.e. low flow toilets, shower heads, faucets, dishwashers, and washing machines) through distribution of information, and, if possible, rebate and incentive programs. Existing dwelling retrofit potential and status shall be reviewed by the water rate review committee during each two year review period.
4. The costs of water and wastewater system improvements needed to support new development shall be paid by the developer. The minimum cost for a new equivalent residential connection shall be no less than the calculated cost of a cash assessment in 1987 adjusted for inflation at the time of installation.
5. Applications for developments that include the drilling of new wells shall include hydrology reports identifying impacts on existing wells in the vicinity.
6. Developments which include man-made lakes shall utilize surface water, treated effluent or other sustainable sources rather than groundwater as the primary water source for filling and maintaining the lakes.
7. All utilities shall be underground for new developments requiring Commission or Board approval.

8. New developments shall be encouraged to incorporate energy conservation measures through the use of passive solar design, appropriate site planning, landscaping, and building materials.
9. Any new above ground utility infrastructure shall include mitigation of visual and aesthetic impacts by the use of appropriate color schemes, building materials, setbacks, landscaping, and/or other methods of visual screening or buffering.
10. Citizens Utilities shall be strongly encouraged to re-evaluate the feasibility of bringing natural gas to the study area, possibly through some form of partnership with the community, special rate structures, or other creative solutions that would be mutually beneficial to the community and the utility provider to the extent allowed by law.

TRANSPORTATION

Existing Road System

There are approximately 18.3 miles of roads in Kachina Village maintained by Coconino County. Approximately 9.3 miles are paved, and 9.0 miles are graded cinder roads. The roads in Kachina Village amount to approximately 1.8% of the total miles of roads in the County road system. Kachina Boulevard is the only street in Kachina Village classified as a major collector.

Kachina Trail, Kona Trail, Pinon Trail, Toho Trail, Tonalea Trail and Tovar Trail are classified as minor collectors. All others are classified as local streets. Local streets are roads used primarily for direct residential access to adjacent properties. Minor collectors are roads that feed primarily residential traffic from local streets to major collectors or arterials. The road classifications in Kachina Village were determined by the Arizona Department of Transportation (ADOT), and have no bearing on level of maintenance, speed limits or other matters that are determined by the County Highway Department.

The original development concept for Kachina Country Club Village in 1965 included private unpaved streets to be maintained by a property owners association. However, in 1968, the developer requested that the County accept the roads for maintenance, and the Board of Supervisors agreed. Unpaved roads met County standards at the time, with Board approval. All subsequent units of Kachina Village were approved with unpaved roads accepted by the County.

At the time, the Board considered unpaved roads adequate since the development was designed as a vacation community that would only be occupied on a part time basis. As more full time residents began living in the community, there was, and continues to be, increased demand for road improvements.

Dust generated by traffic on unpaved roads is an issue of concern in the community. Water is applied for dust control during grading, but, because of the high cost involved, dust control is not part of the normal road maintenance procedures. It is the County Highway Department's position that paving is the most effective and practical method of dust control. Survey results show that 66% of respondents who live on unpaved roads rated controlling road dust as of moderately high (13%) or high (53%) concern. Respondents who live on paved roads rate controlling dust as a much lower concern.

The only road in the study area outside of Kachina Village proper, is Forest Road 237 connecting the ADOT frontage road at Kachina Boulevard with Highway 89A. FR 237 is not maintained by the County, and receives only limited maintenance by the Forest Service. It is closed seasonally when impassable due to snow or run-off in Pumphouse Wash. When open, it is used by residents as a short-cut to Highway 89A and points south, as well as by recreationists for dispersed camping and access to national forest land.

Road Improvements

Major road improvements such as paving, if not done by the developer, may be done through the formation of a road improvement district. The formation of such a district requires a petition signed by a majority of property owners in the proposed district or by the owners of 51 per cent or more of the property within the district. Upon approval of the district, the property owners pay assessments to cover the costs of the project. There have been two road improvement districts in Kachina Village, the first in the southeast portion of the Village in 1987, and the second in the central portion in 1992.

According to the 1996 community survey, approximately two thirds of respondents are in favor of more paving in Kachina Village. Approximately 65% of respondents who live on unpaved roads are in favor of a Special District being established, which would assess fees to pay for the paving. However, according to the survey, only about 40% are willing to pay at least \$4,500 in Special District assessments, which was the cost per lot for the 1992 paving project.

Without a road improvement district, state statutes limit the amount of road improvements the County can do. However, improvements necessary for flood control may be constructed by the County such as the paving of portions of Kachina Trail, Tovar Trail and Pinon Trail that has been done in conjunction with flood control projects. In 1993, the County built a bridge designed for a 50-year flood event where Kachina Trail crosses Pumphouse Wash. The bridge was completed two weeks before major flooding occurred, which would otherwise have blocked access to a major portion of the community. In 1996, Tovar Trail was reconstructed with drainage structures designed for a 25-year event. Additional flood control improvements are included in the Highway Department's five-year plan.

Road Maintenance

Funding for road maintenance is primarily derived from the Highway User Revenue Fund (HURF), which is generated by gasoline taxes and vehicle license fees. Another source is U. S. Forest Service payments in lieu of taxes (PILT). PILT funds have diminished substantially in recent years due to the lack of timber sale activity on national forest land, and the majority of PILT funds that are available are being allocated for school purposes rather than roads. Contrary to popular belief, property taxes are not used for road maintenance.

Maintenance of unpaved roads is more expensive and labor intensive than maintenance of paved roads. In Kachina Village, the paved roads are chip sealed on a seven year cycle, and repaired as needed. The unpaved cinder roads are scheduled for grading anywhere from six times per year to 48 times per year depending on each road's level of service.

Snow removal in Kachina Village requires 24-hour coverage. The goal is to have every road open within a 24 hour period, with the collector streets receiving highest priority. New

equipment was purchased in 1995 to improve the clearing of cul-de-sacs.

In FY 1995, the County spent \$247,098 on road maintenance in Kachina Village, which was 4.2% of the total maintenance budget for the year. In the same year, \$129,374 was spent on snow removal in Kachina Village, which was 14.4% of the total snow removal budget. As mentioned previously, the roads in Kachina Village amount to approximately 1.8% of the total miles of roadway in the County road system. Virtually all roads in the County system require snow removal with varying frequency and priority. Kachina Village receives a relatively high percentage of the snow removal budget, because of the high traffic counts resulting from the high density development in the community.

The 1996 community survey results show that the vast majority of respondents feel that road maintenance in Kachina Village is average or better. Respondents who live on unpaved roads are slightly less satisfied with the existing level of maintenance.

Pedestrian Pathways and Trails

There are no dedicated pedestrian pathways or trails in Kachina Village. A considerable amount of pedestrian traffic occurs on the streets or on the adjacent roadway shoulders. This often creates a dangerous situation, especially for school children walking to and from the bus stops. There are also a number of pathways that have developed through general usage on private property, which are used by children walking to bus stops and other residents to obtain access to Forest Service land. There are also two locations off Toho Trail in the southwest portion of the Village where public right-of-way serves as access to Forest Service land. One is south of Tonalea Trail, and the other is an undeveloped extension of Buffalo Trail to the west. Trails on adjacent national forest land, particularly along Pumphouse Wash west of the community, have also developed through general usage, but are not maintained by the Forest Service as part of an officially designated trail system.

The KVID wetlands includes pathways around the ponds. The wetlands pathways serve the dual purpose of providing service access for maintenance of the ponds, as well as pedestrian access for walking, birdwatching and other purposes. KVID has printed a pamphlet for a self-guided interpretive tour featuring information on the ecology of the wetlands and the species that inhabit the area. A map of the wetlands is on display at the KVID office at 540 Jadito Trail.

The Flagstaff Urban Trail System (FUTS) includes a trail network within the city limits and connecting to adjacent areas outside the city. FUTS is ideally suited to serve as the central core of a regional trail network, which could include links to Kachina Village and other outlying areas. Such future connections would provide alternative nonmotorized transportation options for residents of the community. Currently, the southernmost extension of the system ends at Fort Tuthill County Park on Highway 89A. The developers of Forest Highlands Unit 5 have committed to dedicate a trail corridor easement just north of their development connecting to the

Highway 89A right-of-way to help facilitate a trail link to Kachina Village. The dedication by Forest Highlands is contingent on the corridor being included in a pending open space plan to be adopted jointly by the City of Flagstaff and Coconino County which will identify future trail corridors in the area. The Forest Highlands offer also includes a \$10,000 contribution as seed money for obtaining matching funds for the costs of capital improvements related to the trail system.

Public Transportation

There is currently no public transportation service available in Kachina Village. Coconino County Community Services Department provided bus service between Kachina Village and Flagstaff on a trial basis during the summer months of 1994 and 1995. During the first summer, they picked up passengers in Kachina Village at 9:00 am, and returned to the Village at 4:00 pm. During the second summer, they added a return trip at 12:00 noon. In 1994, they provided 49 days of service, and served 186 riders. In 1995, they provided 31 days of service, and served 101 riders. The service was open to the public, but was primarily intended to provide kids a means of transportation into town during the day while they were on summer vacation. The service was not implemented in 1996, because of a personnel shortage, but may be re-established in the future.

The Flagstaff Metropolitan Planning Organization (FMPO) was recently formed by the City of Flagstaff, Coconino County, and the Arizona Department of Transportation (ADOT), in cooperation with the U. S. Department of Transportation. The FMPO is a cooperative regional transportation planning process to address transportation planning issues in the greater Flagstaff area, including Kachina Village. One component of the plan will include a transit study to assure that transit service is considered as a viable mode in the implementation of the FMPO Transportation Plan. The transit study is planned for FY 1997, with opportunities for public participation in the planning process.

Traffic Safety

Traffic safety is an important issue in Kachina Village, as it is in most residential communities. Excessive speed and pedestrian use are the most obvious traffic safety issues in the Village. These issues are addressed by traffic control signage installed by the Sign and Striping Division of the County Highway Department, and by enforcement action by the County Sheriff's Department. Traffic control signage must be consistent with the *Manual of Uniform Traffic Control Devices* (MUTCD) published by the Federal Highway Administration.

Traffic control signage includes speed limit signs, stop and yield signs, children playing, and school bus stop signs. According to the Highway Department, there are approximately 20 speed limit signs posted in Kachina Village, which they believe is an adequate number. Requests for additional speed limit signs are reviewed by staff on a case by case basis. There are 14 school

bus stops, all of which are signed in accordance with applicable regulations.

There is one “children playing” sign in Kachina Village. The Highway Department’s position on “children playing” signs is that such signage may be construed as condoning the use of streets as a play area. Since safety on County roads is the main concern of the Sign and Striping Division, they are not in favor of posting signage that may be construed as condoning an unsafe practice.

The majority of all stop signs in the Village are posted on local streets or cul-de-sacs where they intersect with the six minor collectors. The minor collectors carry higher volumes of traffic, higher traffic speeds, and in most cases have limited sight distances. Requests for replacing stop signs with yield signs are considered on a case by case basis.

Centerline striping can be considered on paved roads where pavement width is 20 feet or more, where design speed is 35 mph or more, and other locations where accident records indicate a need. The only road in Kachina Village currently with a centerline strip is the paved portion of Tovar Trail.

Pedestrian traffic on the streets or roadway shoulders often creates unsafe situations in Kachina Village. Unfortunately, there is often no alternative for pedestrians since the development of the community did not include separate pedestrian pathways. This is especially an area of concern as it applies to children walking to bus stops, particularly along the minor collectors. Kona hill is an example of a particularly dangerous location for pedestrians, because of the steep grade, narrow shoulders, and high traffic volumes. Dust from traffic on unpaved roads, combined with the angle of the sun, also creates dangerous visibility problems. Pedestrian caution signs could help alert motorists to the presence of pedestrians in the right-of-way.

TRANSPORTATION GOALS

1. To promote a safe, efficient, and environmentally sensitive circulation system that provides convenient access to existing and future residential properties, commercial developments, recreation areas, and public lands.
2. To mitigate negative impacts generated by the transportation system such as noise, dust, odor, and visual impacts.
3. To promote multiple transportation options beyond single occupancy vehicle usage, including public transportation and nonmotorized trails.
4. To enhance and promote pedestrian safety throughout the community.
5. To establish cost effective maintenance strategies that are sensitive to environmental

considerations.

TRANSPORTATION POLICIES

1. Developers shall pay the cost of road improvements necessary to provide safe and adequate access to proposed developments. Required improvements shall be directly related to and proportional with the impacts of the proposed development. If the proposed development is within 50 feet of an existing paved road, improvements shall include pavement to match the existing roadway, and shall include sidewalks where appropriate.
2. Road improvements necessary to support new development, as determined by the County Highway Department and Board of Supervisors, shall conform to current County standards.
3. The impact of proposed developments on the existing road system shall be evaluated prior to approval, and appropriate mitigation measures shall be included in the conditions of approval. Developers shall be responsible for improvements, including paving, necessary to mitigate impacts on existing roads.
4. The County shall pro-actively take steps toward the establishment and development of a nonmotorized trail corridor between Kachina Village and Fort Tuthill.
5. The County shall help facilitate the formation of road improvement districts when there are interested property owners.
6. The County Highway Department shall implement appropriate maintenance programs to protect the public's transportation infrastructure investment. Maintenance programs shall use best management practices to protect riparian and other environmentally sensitive areas.
7. Public off-road vehicle traffic shall be prohibited from riparian areas within the Kachina Village study area. The U. S. Forest Service shall be encouraged to implement this policy on national forest land within the study area.
8. The Kachina Village Planning Committee strongly advocates the extension of public transit service to Kachina Village with a priority during summer months.
9. Public pedestrian pathways and pathway easements shall be considered in the conditions of approval, if appropriate, for any new developments requiring Commission or Board approval.
10. Future road improvement districts shall consider the feasibility of including pedestrian

- pathways.
11. The County Highway Department shall periodically review the road classifications in Kachina Village.
 12. The County Highway Department shall paint centerline stripes on curves of minor collectors in order to enhance traffic safety in the community.
 13. The County Highway Department shall consider the installation of pedestrian caution signage at appropriate locations in the Village to enhance pedestrian safety in accordance with MUTCD regulations.

PUBLIC SAFETY

Law Enforcement

According to the Coconino County Sheriff's Office (CCSO), Kachina Village leads the list of the top 20 law enforcement activity locations in the County. Criminal damage is the most frequently reported problem in Kachina Village, and domestic violence the second most reported. CCSO complaint reports increased from 168 in 1991 to 410 in 1995, which represents a 144% increase.

Juvenile involvement in incidents has been increasing substantially in recent years. In 1993, juveniles were involved in 29% of case reports, 34% in 1994, and 69% in 1995. There is a correlation between increased activity levels and the summer vacation months when school is not in session.

Complaints about criminal activity are not widespread throughout the community. There are pockets of activity, and a small number of repeat offenders account for a large percentage of the activity. While most of the activity originates within the community, as opposed to being related to freeway traffic, some activity is related to Phoenix area gangs recruiting in the Flagstaff, Kachina Village, and Munds Park areas. In addition to criminal damage and domestic violence, theft, traffic accidents, and burglary account for a high percentage of reports. Drug related offenses account for a small percentage.

A CCSO officer has been assigned to patrol Kachina Village full time since 1993. At that time, block watch areas were established throughout the Village. While increased law enforcement visibility is generally considered to be a deterrent to criminal activity, law enforcement officials recognize a need for more positive youth activities in the local community. Special events such as concerts in the park and pizza parties at the fire station provide occasional activities for local kids. However, because of the community's distance from town, more regularly scheduled activities and local options are needed. A community center with youth programs and recreational facilities may be one alternative that could reduce the percentage of juvenile involvement in police reports.

Although the existing Forest Highlands development is not within the Kachina Village study area, the proposed Forest Highlands Unit 5 is, and therefore, deserves mention. Forest Highlands is a gated community with private security personnel. Law enforcement activity is low, and the same is expected in Forest Highlands Unit 5.

Fire Protection

The Kachina Village Fire District (KVFD) encompasses the communities of Kachina Village and Forest Highlands. There are two fire stations located in the district. Station 21, located at 568 Kona Trail, is manned 24 hours a day, seven days a week. Station 22, located at 1046 Tolani Trail, is not staffed. The district owns five vehicles, including one minipumper, three full

size fire engines, and one command/staff vehicle. The minipumper is used for quick attacks, off-road emergencies, and quick response to medical emergencies. All of the fire engines are fully equipped with the necessary medical and firefighting equipment, and all vehicle and equipment maintenance programs meet or exceed national standards.

KVFD was legally established in 1972 by petition of a majority of property owners within the district. Forest Highlands was annexed in 1988. The district is governed by an elected Board of Directors comprised of five members. The district is funded by a secondary property tax assessed on properties within the district, with additional funding from the Fire District Assistance Tax (FDAT), which is paid by all property owners in the County. Fire District taxes collected in 1995 amounted to \$540,209, and FDAT amounted to \$110,462. The FY 1996 operating budget was \$823,000. The difference between the taxes and FDAT monies collected and the operating budget is accounted for by carry-over funds from the previous year and miscellaneous fund raising. The Fire District operates under a balanced budget. Since Forest Highlands was annexed, the Fire Board has reduced the district property tax rate every year except 1996. With the annexation of Forest Highlands Unit 5, property tax revenues will increase by approximately 25% once homes are built.

KVFD employs ten full time employees and has 15 to 20 volunteers. All firefighters receive training to become State Certified Firefighters, and monthly training sessions are conducted to reinforce emergency response skills. KVFD is an advanced life support provider, and medical personnel include emergency medical technicians, intermediate medical technicians, and paramedics. Medical emergency response services are provided 24 hours a day. Average response time for an emergency call is three to five minutes depending on the location in the district and whether it is a fire or medical call.

The Fire District's primary responsibility is to respond to fires and other emergencies within the district boundaries. Depending on manpower availability, they also respond outside the district from the airport to Kelly Canyon on I-17, and to the Oak Creek Canyon overlook on Highway 89A.

In addition to emergency services, KVFD offers a variety of free non-emergency services to residents of the district. Services include CPR classes, blood pressure checks, campfire/debris burn permits, installation of smoke detectors, youth fire setter education, woodstove inspections, and a multi-purpose meeting room for community groups.

In 1995, KVFD responded to 310 calls, including 39 fire calls, 128 medical, 61 false alarms, 20 cancelled calls, 50 public assists, and 12 hazardous materials calls. The number of calls in 1995 showed an increase in activity over 1994 when there were 227 calls.

There are 36 fire hydrants located throughout Kachina Village, and 119 in Forest Highlands. As

previously mentioned, Forest Highlands is not in the Kachina Village study area for the purposes of this plan, but it is in the Fire District. KVFD owns and maintains the hydrants, and determines where new hydrants are needed. Water supply for fire suppression varies throughout the district, from 5,000 gallons per minute (gpm) in Forest Highlands to 250 gpm at some locations in Kachina Village. Water storage in the district is generally good, but delivery is insufficient in some areas. With the proposed development of Forest Highlands Unit 5, the interconnection of the Forest Highlands and Kachina Village water systems for fire protection is under consideration. Further discussion of fire flows is contained in the *Utility Infrastructure* element.

Fire protection concerns in the district include the use of flammable roofing materials such as untreated wood shake shingles, structures spaced too closely, improper storage of fuelwood and other materials, the improper disposal of woodstove ashes, and inadequate access for emergency vehicles. Some types of commercial development could also be a concern. The “wildland/urban interface” also represents a challenging fire situation for both KVFD and the Forest Service. KVFD is concerned about a wildland fire spreading to the community, and the Forest Service is concerned about a structure fire spreading to the surrounding forest. The wildland/urban interface requires greater coordination and cross training for both agencies.

KVFD has mutual aid agreements with other fire districts in the area, including Mountaineer, Pinewood, and the City of Flagstaff. Also, KVFD is active in the Ponderosa Fire Advisory Council (PFAC), which is an interagency coordinating committee addressing emergency response issues. PFAC was instrumental in developing recommendations for private road standards for improved fire access to properties in the County, which were adopted by the Board of Supervisors in 1995.

The 1996 community survey results indicate that residents are generally satisfied with the fire protection and emergency medical services provided by KVFD.

Traffic Safety

Traffic safety is an important public safety issue in Kachina Village, as it is in most residential communities. Excessive speed and pedestrian use are the most obvious traffic safety issues in the Village. These issues are discussed in the *Transportation* element of this plan.

PUBLIC SAFETY GOALS

1. To ensure safe crime-free neighborhoods.
2. To promote a high level of fire protection and emergency response.
3. To promote greater traffic safety, including vehicular and pedestrian traffic.

PUBLIC SAFETY POLICIES

1. The County Sheriff's Department shall be encouraged to maintain a high degree of visibility in the community.
2. Residents shall be encouraged to participate in the Block Watch program in cooperation with the County Sheriff's Department.
3. Organized youth activities and programs, including special events and ongoing programs, shall be encouraged.
4. Adequate fire protection measures, as specified by the Fire Chief, shall be required in the conditions of approval for new developments requiring Commission or Board approval.
5. The Department of Community Development, in cooperation with KVFD, shall provide information to builders and property owners regarding recommended fire access requirements for residential and other structures.
6. KVFD shall be encouraged to continue to promote public education and awareness of fire prevention measures through the distribution of information and other programs.
7. The County shall rigorously enforce zoning regulations and property development standards regarding the outside storage of flammable materials and minimum building setbacks and separation requirements in order to reduce fire danger.
8. Interagency cooperation shall be encouraged to address wildland/urban interface fire prevention measures.
9. Pedestrian safety issues shall be evaluated and appropriate conditions of approval required for any new developments requiring Commission or Board approval.
10. Future road improvement districts shall consider pedestrian safety measures in the planning and design of road improvements.
11. The County Sheriff's Department shall be encouraged to rigorously enforce speed limits and other traffic laws in Kachina Village, especially in the vicinity of school bus stops.

COMMUNITY

A community is more than "...a group of people living in the same locality or the location in which they live..." as defined by the *American Heritage Dictionary*. Ideally, a community is made up of residents who interact and socialize, help each other out when necessary, and recognize a common community identity defined by a diverse but connected populace. A community is also comprised of the institutions that serve the common needs of the residents such as government, commerce, education, recreation, social interaction, and spiritual needs. However, most communities usually do not contain all of these components in a compact and self-contained locality. Typical American land use patterns and the automobile-orientation of modern society usually requires driving some distance from residential neighborhoods to places of employment, schools, churches, stores, and other services. Kachina Village is no different in this respect than most other communities.

This element of the *Kachina Village Area Plan* addresses schools, parks and recreation, and community center issues, and contains goals and policies intended to foster a greater sense of community identity consistent with the *Kachina Village Vision Statement* as set forth in this plan.

Schools

Kachina Village is located in the Flagstaff Unified School District. Elementary students attend DeMiguel School, and high school students attend Sinagua. During the 1980s, the school district experienced significant growth rates of two to three percent per year. Growth slowed in 1990, and enrollment at DeMiguel was fairly level from 1991 through 1994 with a drop occurring in 1995. There is sufficient capacity currently, and more capacity will be added with bond funds approved in 1995. An additional six classrooms will be constructed at DeMiguel in the spring of 1997.

According to school district officials, significantly more growth will have to occur before any new schools are needed. A future school site has been designated in the new Ponderosa Trails development off Lake Mary Road. The school district would have to purchase the site from the developer if they decide to locate a school there. The district requires 650 to 700 students to make a school economically feasible to operate and maintain. As long as there is adequate capacity in existing schools, redistricting can be implemented to balance enrollment between different schools such as DeMiguel and Kinsey Elementary Schools if necessary.

If and when the school district needs a new school in the area, another option would be to obtain a parcel of national forest land. Under the federal Townsite Act, national forest land can be acquired by local jurisdictions at fair market value for such public purposes as schools. A site of approximately 10 to 12 acres is required for a school. If a suitable site is available, the school district may consider establishing an elementary school in the Kachina Village area to service

students from Kachina, Mountaineer and Munds Park when enrollment exceeds current capacity at the existing schools. The final selection of a school site would be determined by the elected members of the School Board of the Flagstaff Unified School District.

Parks and Recreation

Recreation facilities were major features of the original development concept for Kachina Country Club Village when first proposed in the mid-1960s. The Village was proposed as a gated community with an 18-hole golf course as its central recreation component. Community stables were planned and certain lots were designated as “horse properties.” The golf course and community stables were never built. A community center and swimming pool were constructed and utilized by residents in the early years, but were later abandoned.

Today, the only officially dedicated park site or recreation facility in Kachina Village is Raymond Park, a five acre site off Tovar Trail near the entrance to the community. The park contains the grave site of Dr. R. O. Raymond, an early Flagstaff physician who formerly owned the park site and Dolan Meadow. The site was deeded to Coconino County by the Raymond Educational Foundation in 1974 for the purpose of establishing a community park. The park remained in an undeveloped state for several years. Eventually, improvements were made including picnic tables, swing sets and climbing apparatus, and more recently, a ball field and basketball court were developed.

A couple of “unofficial” recreation sites also exist within the community. They are located on private land, and are routinely used by the public without the consent of the property owner. They include the sledding hill off Kachina Trail south of Pumphouse Wash and the pond just north of Raymond Park. During the winter, cars are frequently parked along the shoulder of Kachina Trail while families enjoy sledding on the steep north-facing slope of the sledding hill. While there has been no survey done of the users of this site, it is suspected that many users are not from the community. The pond has a small pier, which is used for fishing. Both properties are otherwise undeveloped, and the recreational use will presumably continue only until they are developed for other uses or access prevented by the owner. Alternatively, these sites could be acquired for park uses either through purchase, dedication by the owner, or land exchange.

Another site on private land with a certain amount of history of “unofficial” recreation use is the pond on Harrenburg Wash upstream from the wastewater treatment plant. The property is owned by KVID. It is a 16 acre parcel of mostly undeveloped land except for the sewage treatment plant. Several years ago, when the pond was semi-frozen, some children were riding bicycles on the ice when they broke through the surface. Fortunately, they were rescued without major injuries. However, the incident underscored the danger of this type of “unofficial” recreation site, and caused KVID to drain the pond due to liability concerns. KVID has expressed a willingness to dedicate approximately 10 acres of the property, including the pond, to the County Parks and Recreation Department for development of a community park. Liability

is a major consideration for the County as well, however, and is particularly an issue with respect to snow play areas and water features.

Other parcels of land in the community that may be suitable for parks and recreation or trail uses include some of the parcels discussed in the *Land Use* element of this plan in the subsection on *Undeveloped Private Land*.

The Parks and Recreation Department is interested in developing partnerships with other agencies and community groups in order to address increasing demand for services. They are also seeking funding from a variety of sources such as the Heritage Fund administered by the Arizona State Parks Department. Input from Kachina Village residents and coordination with community groups is needed in any future park planning and development. However, once parks are established, funding for operations and maintenance is an important factor to consider and plan for. Due to limited County budgets, other sources of funding, partnerships and opportunities for cost sharing must be identified.

One additional recreation-related issue that should be addressed here is also discussed in the *Transportation* element of this plan. It is a future trail link between Kachina Village and Fort Tuthill County Park, which is currently the southern terminus of the Flagstaff Urban Trail System (FUTS). The draft *Flagstaff Open Spaces and Greenways Plan* identifies a trail link from Fort Tuthill south across Highway 89A and following the eastern boundary of the proposed Forest Highlands Unit 5 development to Kachina Village. The proposed link would facilitate alternate transportation options for residents, as well as provide a direct route to the regional County park and urban trail system for recreational purposes. The Kachina Village Planning Committee, through this plan, strongly endorses the establishment of the proposed trail corridor.

Community Center

It is generally recognized that a community center is a necessary and desirable component of any lively and interactive community. It can serve multiple purposes, and function as a community focal point where neighbors can meet, interact and participate in the many activities that make a community more than just a collection of houses. Ideally, a community center can bring residents together in many ways that help to achieve a sense of community identity.

As mentioned previously, there was a community center established in Kachina Village in the early years of the late 1960s and early 1970s. The community facilities also included a swimming pool, but the community center and pool have long since been abandoned. The property where they were located on Kachina Trail is now privately owned. The closest thing to a community center currently in existence is the multi-purpose meeting room at the main fire station known as the Kmetko Center. The facility is available for community groups, and was furnished with money raised in the community. The Kmetko Center is an active place with much competing demand for use by various community groups. KVFD uses the facility for

firefighter training sessions and other related purposes, and other users include the Girl Scouts, Cub Scouts, aerobics, special events for local teens, elections, and other community-related meetings and activities.

While the Kmetko Center serves many purposes and is a convenient and popular facility for the many people who use it, it does not entirely meet the needs or desires of many Kachina Village residents who could benefit from the amenities provided by a full-scale community center. Ideally, a community center could provide meeting facilities for all the groups that currently use the Kmetko Center, could include a community library, day care, meeting place for local youth, senior center, and many other special events and community uses. The obvious constraint related to establishment of such a facility is the cost. In addition to the initial costs of property, construction and furnishing, the ongoing costs of staffing, operating and maintaining the facilities require a significant financial commitment. It would require a committed homeowners association or similar entity to take on the tasks of establishing and maintaining a community center, as well as the financial support of the members and residents of the community to make it a reality. Currently, there is no such association in Kachina Village.

COMMUNITY GOALS

1. To foster a greater sense of community identity.
2. To promote a range of local recreational opportunities.
3. To encourage the establishment of local schools.
4. To encourage the development of community-oriented facilities.
5. To preserve and enhance the quality of life in Kachina Village.

COMMUNITY POLICIES

1. The Flagstaff Unified School District shall be encouraged to consider the establishment of an elementary school in the Kachina Village area.
2. The County Parks and Recreation Department shall actively seek community participation in planning for future park improvements at Raymond Park.
3. The County Parks and Recreation Department shall seriously consider the acceptance of the KVID property on Harrenburg Wash for inclusion in the County Parks system.
4. The County shall cooperate with the U. S. Forest Service and other agencies in the development of a regional trail link between Kachina Village and Fort Tuthill as

- proposed by the *Flagstaff Open Spaces and Greenways Plan*.
5. The County shall pursue opportunities for additional park development in Kachina Village, including a trail system within the community, as well as regional trail linkages.
 6. Developments that include the establishment of a multiple-use community center and other community-oriented facilities shall be encouraged.

HOUSING

Kachina Village includes a great diversity of housing types, styles and values. This diversity is consistent with one of the goals of the *Coconino County Comprehensive Plan*, which is: “To provide a range of residential land uses which offer housing opportunities for all county residents.” Existing zoning classifications control the type of housing that can be developed throughout the Village. There are areas that allow single family residences only (site-built and UBC modular), other areas for mobile homes only, and a few areas that allow both. The mobile home area includes subdivided lots, as well as a mobile home park with rental spaces. There are two areas zoned for multiple family residential use. Since the development patterns and allowable housing types are already established in most of the community, the policies in this plan will be most pertinent to future zone change requests or development proposals for the large unsubdivided parcels that are currently undeveloped.

The 1996 community survey asked about preferences for various potential residential uses on the currently undeveloped land in Kachina Village. Generally, respondents favored single family residences over multiple family, and larger lot sizes were preferred over smaller lot sizes. Respondents generally opposed any future developments with lots less than one quarter acre in size, and any additional mobile home lots or parks.

Single Family Housing

There are six zoning classifications in Kachina Village that allow single family (site-built or UBC modular) residential development exclusively. They are RS-6,000 (Residential Single Family, 6,000 square foot minimum lot size), RS-10,000 (10,000 square foot minimum), RS-18,000 (18,000 square foot minimum), RS-36,000 (36,000 square foot minimum), RS-4 (four acre minimum), and RR (Rural Residential, one acre minimum). There are three additional classifications that allow both site-built and manufactured homes. They are G (General, ten acre minimum), AR (Agricultural Residential, one acre minimum), and AR-1.5 (Agricultural Residential, 1.5 acre minimum).

There are approximately 835 single family residences in Kachina Village. The quality and style of the housing varies greatly throughout the community, and ranges from simple cabins and A-frames intended for part-time occupancy to substantial homes designed as full-time residences. Many of the older cabins that were originally built for weekend or summer occupancy have become rental homes occupied year round or purchased by full-time residents and upgraded to accommodate their needs. Although there is still a range of housing types being constructed on the few remaining vacant lots, the general trend is toward more substantial construction than was typical in the early years.

Multiple Family Housing

There are two separate areas zoned for multiple family housing. One is near the entrance to the community on Kachina Trail south of Kachina Boulevard. The other is in the central portion of the Village at the corner of Kachina and Mesa Trails. The zoning classification is RM-10/A (Residential Multiple Family, 10 units per acre maximum) for both areas. Up to four residential units are allowed on a single parcel as a permitted use in the RM-10/A Zone. Five units or more require a conditional use permit approved by the Planning and Zoning Commission. The RM-10/A Zone also allows single family residences as a permitted use.

The multiple family area south of Kachina Boulevard is developed with a mix of single and multiple family residences. Going from north to south: there are four separate detached rental units on a single lot at the corner of Kachina Boulevard and Kachina Trail; then two single family residences on individual lots; then two duplexes on a single parcel; then a vacant 1.8 acre parcel; then four duplexes on two parcels. There are also two vacant parcels in this block immediately south of the convenience store.

The second multiple family area south of the corner of Kachina and Mesa Trails is developed with a total of seven duplexes on three parcels and a separate single family residence on another parcel. There are no vacant parcels in this block.

Mobile/Manufactured Housing

A large portion of the north end of the Village is zoned exclusively for mobile, manufactured, or modular housing. Manufactured homes are, by definition, mobile homes that have been constructed since 1976 to HUD standards with a HUD seal affixed. Modular homes, however, are built to Uniform Building Code (UBC) standards, and may be placed in any residential zone.

The zoning classification for the mobile home area is the MHP (Mobile Home Park) Zone, which applies to both the subdivided mobile home lots and the mobile home park with rental spaces. There are also a couple of locations in the central and southwest portions of the Village in the AR and AR-1.5 Zones that allow mixed mobile and site-built homes. Altogether, there are approximately 450 mobile homes on individual lots and 84 spaces in the mobile home park. There are approximately 30 legal nonconforming mobiles in areas that are currently zoned for site-built homes only. Legal nonconforming means that they were established prior to the current zoning.

Some of the lots in the mobile home area were originally marketed as “trailer lots” where the owner could park a travel trailer for weekend or occasional use much like a glorified trailer park or campground. Some travel trailers were set up on a more or less permanent basis often with room additions attached. Travel trailers are no longer allowed by the zoning regulations, but some older legal nonconforming units remain throughout the mobile home area. The area continues to serve as a weekend or summer retreat for some owners, and as low cost housing for

other full-time residents.

The MHP Zone allows mobile, manufactured, or modular homes only, and does not allow site-built homes. Furthermore, a room addition added to a mobile home in the MHP Zone is limited in size to not exceed the square footage of the mobile it is attached to. This limitation is intended to prevent excessive additions that may have the effect of converting a mobile to a site-built unit.

According to the 1996 community survey, there is not much objection to allowing site-built homes to be built in the MHP Zone; 47% don't mind if site-built homes are built in the mobile home area, 34% are neutral, and 18% are not in favor of allowing site-built homes.

The *Zoning Ordinance* contains provisions for another special purpose zone known as the RMH (Residential Mobile Home) Zone, which allows both site-built and mobile/manufactured homes.

This could be an option for areas where residents want greater flexibility in housing choices. For more discussion on this issue, see *Affordable Housing* below.

Affordable Housing

Affordable housing is often identified as the main reason that residents moved to Kachina Village. There is no single legal definition of “affordable housing.” Since the term is relative to an individual’s particular financial situation and perspective, affordable housing is defined differently by different people. However, in general terms, there are many examples and opportunities for affordable housing in the Village. Examples exist in all categories of housing types, including mobile home rental spaces, mobile home lots, single family, and multiple family housing. Since there is no universally accepted definition of affordable housing, it is difficult to precisely quantify existing opportunities for affordable housing in Kachina Village. However, as an example, approximately 28% of the total number of subdivided lots in the Village are in the MHP Zone allowing mobile, manufactured and modular homes.

While it is recognized that affordable housing is a serious issue, it should be acknowledged that it is a regional and societal issue that cannot be solved in Kachina Village alone, where substantial opportunities for many types of affordable housing already exist. In areas where a majority of residents desire to upgrade their neighborhoods through zone changes, that opportunity should not be denied to them. The RMH Zone, which allows both site-built and mobile homes, may be a reasonable alternative for some portions of the community currently in the MHP Zone. Requests for changes to RMH for individual lots would not be desirable in terms of maintaining consistency throughout neighborhoods. However, where a majority of property owners in larger block areas are in favor of RMH Zoning, it could be more appropriate.

HOUSING GOALS

1. To provide a wide range of housing opportunities and options for a diverse population.

2. To encourage neighborhood-wide consistency in zoning.

HOUSING POLICIES

1. Proposed multiple family developments requiring Planning and Zoning Commission approval shall be in scale with the character of the surrounding neighborhood.
2. All new multiple family residential projects, including expansion of existing multiple family housing, shall conform to the *Design Review Guidelines* contained in this plan.
3. No additional MHP (Mobile Home Park) Zoning shall be established.
4. New mobile home developments in the *existing* MHP Zone shall be developed in accordance with the site development standards and performance standards of Section 13.1, *Coconino County Zoning Ordinance*. Waivers from paved roadways and landscaping requirements shall not be permitted.
5. Rezoning of existing subdivided lots in the MHP Zone to RS Zoning shall not be approved.
6. Rezoning from MHP (Mobile Home Park) to RMH (Residential Mobile Home) shall be considered for block areas where a majority of property owners within the block are in favor of such a change to allow mixed mobile and site-built homes. Proposed zone changes for individual lots shall not be approved. In the context of this policy, a block is defined as an area made up of multiple lots bounded by streets, adjacent zoning boundaries, natural features, or other characteristics that separate it from adjacent blocks or uses.

NATURAL RESOURCES AND ENVIRONMENTAL QUALITY

The 1996 *Kachina Village Community Survey* results indicate that residents have a high level of concern about the environment and management of natural areas within and surrounding the community. The *Coconino County Comprehensive Plan* recognizes the importance of the natural environment to County residents, and emphasizes the protection of such resources in the interests of fostering economic development, maintaining property values, and providing for a high quality of life. Accordingly, this element of the *Kachina Village Area Plan* addresses the issues of open space, air and water quality, floodplains, riparian areas and wetlands, tree preservation, forest management issues, wildlife, the KVID wetlands, and aesthetic issues such as scenic views, and noise and light pollution. Related issues regarding parks and recreation are addressed in the *Community* element.

Open Space

Open space as a land use issue within the Village is addressed in the *Land Use* element. This section primarily addresses open space issues related to public lands surrounding the community.

An open space planning process that includes the Kachina Village area is currently in progress. A committee comprised of citizens and agency representatives known as the Flagstaff Open Spaces and Greenways Committee has been appointed to develop an open space plan and intergovernmental agreement to balance sustainable development with the retention of open spaces and natural areas. The objectives of the plan are to encourage community consensus regarding open space and development issues, to maintain the mountain and forest character of the Flagstaff area, and to preserve a greenbelt of diverse open space around urbanized core areas that defines a boundary for urban development. Additional objectives include the preservation of unique topographic, geologic, biologic, and cultural features; to provide opportunities for connections between neighborhoods and open spaces; to maintain wildlife corridors; to encourage recreational opportunities; and to promote more effective intergovernmental coordination. In addition to interested citizens and community groups, the committee includes representatives of various government agencies including the City of Flagstaff, Coconino County, the State Land Department, Arizona Game and Fish, the U. S. Forest Service, and the National Park Service.

The drafting of the *Open Spaces and Greenways Plan* simultaneously with the *Kachina Village Area Plan* presents an opportunity for greater coordination and implementation of each plan's objectives. The identification of a trail corridor connecting Kachina Village with the FUTS trail terminus at Fort Tuthill is one area of overlapping objectives, as well as the use and management of national forest land surrounding the Village. The Forest Service is particularly interested in developing partnerships with other agencies and communities like Kachina Village to create or enhance trails and protect natural resources. National forest issues are discussed in more detail beginning on page 40.

Air Quality

Air quality varies throughout Kachina Village depending on location, and ranges from excellent to poor. Areas of poor air quality are primarily caused by dust from unpaved roads. Woodstove smoke also negatively affects air quality on a seasonal basis, but to a much lesser extent than road dust. Other sources of airborne particulates include natural wind-blown dust, construction activity, Forest Service prescribed burns, vehicle emissions, and dust from cinders spread on paved roads by the Highway Department during snow storms.

The Arizona Department of Environmental Quality's (ADEQ) Air Quality Division is responsible for monitoring and enforcing air quality standards set by the U. S. Environmental Protection Agency (EPA) under the federal *Clean Air Act*. The Air Quality Division's monitoring section determines where to install air quality monitors. There are no air quality monitors in Kachina Village, and, therefore, there is no scientific data available to determine if EPA air quality standards are being met. The nearest monitor is located at Thorpe Park in west Flagstaff. Monitors are usually located on public buildings or utility company buildings at locations typical of the surrounding area for long term monitoring.

Road dust negatively affects air quality in those portions of Kachina Village with unpaved roads, which is slightly less than half of the road miles in the community. According to the 1996 community survey, the importance of controlling road dust is directly related to whether or not the respondent lives on a paved or unpaved road. Of those who do not live on a paved road, 66% rated controlling road dust as of moderately high (13%) or high (53%) concern. Those respondents who live on paved roads rated controlling dust much lower, 25% moderately high and only 16% of high concern. Overall, 43% of respondents thought that controlling road dust was moderately or very important, and 30% of respondents were in favor of establishing a dust control improvement district. However, less than half of those who were in favor of a dust control improvement district were willing to pay more than \$50 per year in assessments. Approximately two thirds of respondents are in favor of the establishment of paving districts. As more roads are paved through the formation of paving districts, road dust will become less of an issue.

Woodstove smoke is a seasonal source of air pollution in the Village, and impacts can be quite variable depending on topography and weather conditions. Low-lying areas subject to weather inversions are affected much more so than higher locations where smoke is dispersed more readily. Newer woodstoves must meet EPA requirements, but there are many older stoves that do not meet current standards. Also, variables such as the type of fuel burned and the manner in which the stove is operated affect the emissions. Since many residents rely on wood as their primary source of heat, public education on the proper use of woodstoves is necessary to lessen the impact of this source of air pollution.

Smoke from prescribed burns on nearby national forest lands periodically affects air quality in

the community. The Forest Service monitors weather conditions, fuel moisture, air quality, and other variables when conducting prescribed burns. While the smoke may be an occasional irritant to residents, prescribed fire is an important component of forest management necessary to reduce the threat of catastrophic wildfire and to maintain a healthy pine forest ecosystem.

Water Quality and Quantity

Water quality and quantity are essential considerations in any community, especially in areas such as Kachina Village where sources are limited. The quality of the Kachina Village domestic water supply is excellent. However, the source is groundwater pumped from an aquifer in the Coconino sandstone approximately 1,000 feet below the surface, which makes it a very expensive supply to produce. The protection of groundwater is, therefore, crucial to the continued viability of the community. More detailed information about the domestic water system in Kachina Village is contained in the *Utility Infrastructure* element of this plan.

Several different state agencies have jurisdiction over water-related issues. The ADEQ Water Quality Division is responsible for enforcing EPA regulations consistent with the federal *Clean Water Act*. The Arizona Department of Water Resources (ADWR) regulates the pumping of groundwater through the issuance of well drilling permits, and regulates surface water through permits for ponds and other impoundments. The Arizona Corporation Commission (ACC) regulates water companies and other utilities in terms of rate structures and franchise areas. The County has limited authority in water-related matters regulated by these agencies. Therefore, the protection of water resources requires a high degree of coordination between the state agencies in conjunction with the land use regulatory functions of the County.

In the Kachina Village study area, KVID has exclusive rights to groundwater wells within the improvement district. The Salt River Project (SRP) claims surface water rights in the area, and routinely protests any applications for impoundments.

Improper grading and excavation practices can have detrimental impacts on surface water quality when they result in drainage problems, excessive erosion and sediment loading on streams or wetlands. The County has adopted a *Grading and Excavation Ordinance* consistent with such requirements contained in the *Uniform Building Code* (UBC). However, the primary purpose of the ordinance is not related to protection of water quality. It is primarily intended to protect life, property and the public welfare by preventing structurally unsafe cut and fill situations and poor drainage. It addresses cuts and fills, slopes and compaction, drainage and terracing, and erosion control. Enforcement of its provisions related to drainage and terracing and erosion control helps to protect surface water quality to a certain extent, but such protection is primarily addressed by EPA regulations administered by the ADEQ Water Quality Division and the U. S. Army Corps of Engineers (Corps). See the subsection on *Floodplains, Riparian Areas and Wetlands* for more about the Corps' regulatory authority related to the protection of wetlands.

Floodplains, Riparian Areas and Wetlands

A greater awareness of the importance of floodplains, riparian areas and wetlands is becoming apparent to land management agencies as well as the general public. Since Pumphouse Wash is the major tributary of Oak Creek, which has received a “Unique Waters of Exceptional Significance” designation by ADWR, it is mandatory to consider impacts of development, as well as existing uses, on riparian areas and the Oak Creek watershed as a whole. Riparian areas consist of diverse habitats found along stream banks and the edges of wetlands. Such areas serve as natural storm runoff channels, provide corridors for migratory wildlife, provide seasonal habitat for numerous bird species, and are also popular “magnet” areas for recreation purposes. Healthy riparian areas contain a great diversity of plant, animal, and insect life. Neglected and abused riparian areas result in increased erosion, degradation of water quality, and diminished wildlife habitat. The riparian zone of Pumphouse Wash in the Kachina Village study area has been affected by residential construction in Unit Six, by road construction and maintenance practices, by channelization at the wastewater treatment plant, and by off-road vehicle (ORV) use on national forest lands.

According to the 1996 community survey, Kachina Village residents think that protection of floodplain areas is important, and approximately 70% think that the best way to preserve them is to leave them as is with no construction permitted.

There are significant amounts of acreage in Kachina Village designated as Special Flood Hazard Areas (Flood Zone A) by the Federal Emergency Management Agency (FEMA). These areas include virtually all of the 57-acre Dolan Meadow, and the floodplain of Pumphouse Wash along Pinon Trail (see Map 3). The terms “Special Flood Hazard Area” and “floodplain” in this context refer to the 100-year floodplain, which is defined as any area with a one percent chance of flooding in any given year.

In Kachina Village, the FEMA floodplain map indicates an approximate 100-year flood zone location designated as Flood Zone A. However, in 1990, ADWR did a floodplain delineation study for a portion of Pumphouse Wash downstream from Dolan Meadow. Any development proposals outside the ADWR delineation would require further study, at the developer’s expense, prior to any development to determine precise floodway and floodplain boundaries and 100-year flood elevations.

Development in designated floodplains is possible under certain conditions. The provisions under which development can occur are contained in the FPM (Floodplain Management Overlay) Zone of the *County Zoning Ordinance* (Section 13.6). For all practical purposes, no development is permitted in the floodway, which is the main channel of the stream and the area of highest hazard. Beyond the floodway, but within the 100-year floodplain, building may occur, but the lowest finish floor elevation must be at least one foot above the 100-year flood elevation. Engineering certification is required to assure compliance with the floodplain

regulations.

There are several springs around the periphery of Dolan Meadow that feed Pumphouse Wash, and the meadow is subject to wetlands designation as defined by the EPA and the U. S. Army Corps of Engineers (Corps). Wetlands designation places additional restrictions and permit requirements on development of the property. The Corps determines delineation of wetlands and administers Section 404 permits under the *Clean Water Act*. A Section 404 permit is required for any project that results in the discharge of dredged or fill material into wetlands. As an example, the County obtained a 404 permit for the construction of the Kachina Trail bridge. A wetlands delineation and 404 permit would be required prior to any development of the Dolan Meadow and/or Pumphouse Wash.

Tree Preservation

According to the 1996 community survey, almost 90% of residents think that preserving trees on the undeveloped parcels of land in Kachina Village is important. The forest environment has been an important and defining characteristic of Kachina Village since the earliest planning and development of the community. Builders and residents have typically tried to preserve as many trees as possible when building, even to the extent that decks and eaves have been built around trees in order to preserve the greatest number of trees possible. While this has resulted in the preservation of the forest “feel” of the Village, it has resulted in some dangerous fire potential and forest health issues due to the relatively high density of trees in some areas, and their proximity to structures.

Trees growing through decks or eaves or too close to a residence can be targets for lightning, can be ignited by sparks or embers from nearby chimneys, and increase the likelihood of damage or loss of the structure in the event a wildfire sweeps through the community. Fire organizations refer to the concept of “defensible space” when looking at vegetation and other fuel sources in close proximity to structures. In some areas of California where urban interface wildfires have destroyed dozens of homes, the homes that were saved were the ones with less-dense vegetation immediately adjacent to the house and more defensible space. The same thing could easily happen in Kachina Village, as demonstrated by the fire season of 1996, during which several subdivisions in the Flagstaff area narrowly missed being burned over by wildfires.

Defensible space does not necessarily mean an area entirely devoid of vegetation. The Forest Service considers a 30 foot wide fuel break to be the minimum recommended defensible space around all structures. Wider fuel breaks are needed around buildings located on steep slopes or in areas of dense, highly flammable fuels. The fuel break may contain trees and shrubs adequately spaced so that they will not rapidly transmit fire from the vegetation to the structure. Trees and shrubs should be spaced at least 15 feet apart, and branches removed to a height of 15 feet above the ground to prevent ground fire from spreading to the tops of trees. Trees should be at least 10 feet from chimneys or stove pipes. Foundation plantings should be of non-resinous vegetation and kept free of dead plant material. Fire prevention measures and the definition of

defensible space can vary depending on topography, vegetation, building materials, and other fuel sources. More information and recommendations on defensible space in Kachina Village can be obtained from KVFD.

Coconino County has no ordinances or regulations that address the cutting of trees on residential property. For commercial developments that require a conditional use permit, conditions of approval can be specified by the Planning and Zoning Commission to address such site development considerations as tree preservation if appropriate. However, in the interests of public safety and protection of property, tree preservation should be balanced with the provision of adequate defensible space for any residential or commercial construction. More public education is needed in this area, because although awareness is increasing, many people still do not recognize the danger associated with heavy vegetation in close proximity to their residences. Increased cooperation between the various affected agencies and the public could help this situation.

Other considerations related to tree preservation include forest health issues, as well as energy conservation and air quality. Thinning trees that are spaced too closely makes the remaining trees healthier and more resistant to bark beetles. Also, thinning trees on the south aspect of the home allows more sun to heat the home in the winter, therefore requiring less heating fuel. Less fuel consumption equals energy conservation and cleaner air, especially if wood is the primary heat source.

National Forest Issues

The Kachina Village study area, for the purposes of this plan, includes approximately four square miles of national forest land to the south and west between the Village boundaries and the west side of Pumphouse Wash and the south side of Kelly Canyon. The area is managed by the Mormon Lake Ranger District of the Coconino National Forest. Forest management during the last five years has emphasized urban interface issues such as reduced fire potential. Other important forest issues include recreation, riparian areas, timber harvesting, grazing, wildlife, and general forest health. With reduced federal budgets, reductions in personnel, and a greater emphasis on urban interface issues and ecosystem management, the Forest Service is relying more on community input and participation in forest management decisions.

The 1996 *Kachina Village Community Survey* asked respondents about seven forest-related issues, including wildfire, dispersed camping, ORV use, use of firearms, timber harvests, livestock grazing, and land exchanges. Wildfire was rated very important by 90% of respondents. Use of firearms adjacent to the Village was a moderate or important concern to 88%. Land exchanges were considered very important by two thirds. Timber harvests and ORV use were also important concerns, while livestock grazing was not considered important by a majority of respondents. Most respondents were in favor of closing adjacent national forest lands to hunting and shooting, prohibiting open fires, restricting vehicular access, and harvesting

timber only when its primary purpose is to reduce fire hazard. Less than a majority were in favor of closing areas to dispersed camping and livestock grazing. As the Forest Service implements the *Pumphouse Area Analysis* recommendations of 1993, which are mostly in harmony with these findings, better conditions on public lands should result.

There are four access points in Kachina Village that provide direct access to national forest land. The main vehicular access point is the junction of FR 237 with Kachina Boulevard at the entrance to the community. Other access points are located off Toho Trail near Tonalea, at the junction of Buffalo and Toho Trails, and at Pumphouse Wash west of the sewage treatment plant. The 1996 community survey asked residents about their frequency of use of the various access points and the activities that they engage in on public land. Use of the four access points is comparatively balanced, with the two most heavily used being FR 237 and Pumphouse Wash near the sewage treatment plant. The least used access point is at the junction of Toho and Buffalo Trails. Aside from vehicular access, residents generally use the access point closest to their home.

According to the survey, the most common activities on forest land are walking and wildlife viewing. Over fifty percent of respondents used the adjacent national forest for these purposes at least once a week, and usually more frequently. Dog walking, bicycle riding, and jogging were also frequent uses. Comparatively, hunting, picnicking, and ORV uses occurred less frequently. Most respondents have never hunted on adjacent national forest lands, and about two thirds never jog or use ORVs on these lands. In contrast, the remaining six activities are engaged in at least once a year by survey respondents.

The Forest Service solicited input from Kachina Village residents through local community meetings in 1993 during the *Pumphouse Area Analysis* process. Residents indicated they wanted forest roads in the area left in primitive conditions. Some primitive roads in the area have been identified for elimination, and some roads will be converted to trails. A limited amount of road improvements, such as surfacing and dust control, are planned in association with the Pumphouse Timber Sale. Funding for road improvements is tied to timber sale activity, which has been virtually nonexistent for the past year, because of a federal court injunction related to protection of the threatened Mexican spotted owl. The injunction was lifted in December, 1996.

Timber management treatments include pre-commercial thinning and timber sales (saw timber and pulp wood). Recent emphasis has been on the removal of smaller trees, the leaving of larger trees, and urban interface fire protection. Timber stands have been marked south of the Village, and some thinning has occurred. Prescribed burning of slash has occurred, and more is planned as a fire prevention measure.

Recreational activity is an increasingly important forest issue. There is increased dispersed camping activity south of the Village and in Pumphouse Wash off FR 237. Problems related to this activity include long-term campers (longer than 14 days) causing significant soil compaction

in some areas, abandoned campfires, garbage, vandalism, and illegal tree cutting. Increased use of the area for hiking, mountain biking, and ORV use has created new trails, sometimes in inappropriate places and with undesirable resource impacts. For example, wet weather use of roads in fragile areas like meadows and riparian areas causes soil damage and erosion. Planning a manageable trail system, with community input and support, and rehabilitating damaged lands, could help ensure healthy natural resources for the future. Closing some roads and restricting dispersed camping areas are management options that the Forest Service should consider to protect resources and prevent fires in the urban interface. The Kachina Village Planning Committee recommends closing all side roads off FR 237 and allowing no camping within one mile of the Village.

Livestock grazing occurs on the forest grazing allotment adjacent to the Village, and cattle occasionally wander into the community. Under Arizona's open range laws, however, property owners are responsible for fencing their properties to keep livestock out. Grazing permittees are required to maintain fences on forest land, but under Arizona's open range laws, property owners are responsible for fencing and maintaining fences on forest/private land boundaries to keep livestock out.

National forest land is subject to land exchange proposals. Such activity has tapered off considerably in recent years, and no new land exchanges are currently under consideration in the study area. In the future, however, as developable land in the area becomes scarcer, there may be renewed pressure for exchanges. The process requires full public involvement under the *National Environmental Policy Act* (NEPA). Policies in the *Kachina Village Area Plan* and other community input would be considered in any decision on future land exchange proposals.

Wildlife

As mentioned above under *National Forest Issues*, wildlife viewing is a popular activity in and around Kachina Village. In addition to wildlife habitat found in the forest around the Village, existing natural vegetation, riparian areas, springs, and other water sources within the community provide habitat for a number of species of birds and mammals. Pumphouse Wash is an important bird movement corridor, and there are a number of rare species in the vicinity. Some of the small mammals commonly seen in the area include Abert squirrels, golden mantled ground squirrels, striped skunks, and an occasional fox. Large mammals include elk, mule deer and coyotes. Although not seen very often, black bear, mountain lions and bobcats also inhabit the surrounding forest. Bird species are too numerous to mention, especially at the KVID wetlands. The Northern Arizona Audubon Society compiled a list of 143 bird species seen at the wetlands during an 18 month period between July, 1991 and December, 1992. The list is available from KVID.

Because of the many ways in which the community interfaces with wildlife and wildlife habitat, conflicts can arise. In this context, some species become "nuisance" animals, such as skunks,

foxes, and bears. Other problems include free-ranging dogs and cats that injure or kill wildlife; improper use of vehicles, including ORVs; improper location of trails that cause erosion and destroy habitat; high concentrations of people and human activities that disturb wildlife; and trails that dead end into the community that can lead nuisance animals into human-inhabited areas with no way out. Community sensitivity to wildlife needs for security and habitat will help ensure that a wide variety of wildlife remains in the area.

KVID Wetlands

The KVID wetlands project was constructed in 1988 to dispose of treated effluent from the Kachina Village wastewater treatment plant. The wetlands is located on 160 acres north of Forest Highlands Unit Two. Access is from a cindered parking area at the end of Tovar Trail. In addition to disposal of effluent, the design is intended to provide wildlife habitat, and to promote the nesting of migratory waterfowl. Habitat improvements have been accomplished with the participation of Northern Arizona University, the Arizona Game and Fish Department, Ducks Unlimited, the Northern Arizona Audubon Society, and the Arizona State Land Department. College and high school students have participated in scientific projects at the wetlands, and have helped with the planting of aquatic and terrestrial plants in and around the ponds.

While the original impetus for the project was to create an environmentally acceptable method of effluent disposal, the wetlands and the birds they attract have become a community amenity. They provide recreational, educational, and scientific opportunities for local residents and students, and serve as a model for the constructive use of municipal wastewater. In 1995, KVID conducted a wetlands seminar for approximately 100 attendees from various communities and agencies throughout the state who learned about the use of constructed wetlands for the disposal of effluent and the creation of wildlife habitat.

Aesthetics

The aesthetic and scenic qualities of Kachina Village are important characteristics of the community. Such qualities include natural vegetation, scenic views, dark skies, and natural quiet. Protection of these qualities can help define the character of the community and can preserve and enhance property values.

The preservation of natural vegetation has been discussed to a certain extent already, but the importance of such preservation, consistent with fire prevention concerns and forest health issues, should be reiterated here.

Scenic views vary throughout the Village, and include views of the San Francisco Peaks, Woody Ridge, Pumphouse Wash, Dolan Meadow, and other features of the local landscape. Visual intrusions that can negatively affect these scenic vistas include inappropriate location of a variety of structures, overhead utility lines and power poles, signs, poor grading and excavation

practices, and the unnecessary or inappropriate removal of vegetation. Such intrusions on the visual qualities of the community have occurred in varying degrees throughout the Village. Future degradation of the scenic values of the community can be avoided or mitigated through public education and appropriate conditions of approval attached to new developments.

The quality of the night skies of the region has been recognized by astronomers and residents alike. Several astronomical observatories are located in the Flagstaff area to take advantage of the clear, dark skies, and many residents enjoy nighttime sky viewing as well. The lack of street lights and urban light pollution in Kachina Village is seen by many as a quality worthy of preservation. Dark skies are threatened by unshielded or excessive lighting of commercial developments, as well as excessive or inappropriate residential lighting. The *Coconino County Lighting Ordinance* is intended to minimize light pollution and light trespass.

Natural quiet, or the absence of human-caused noise, is becoming an increasingly rare quality even in remote areas. In Kachina Village, noise impacts primarily result from vehicle and air traffic. Highway noise from I-17 affects properties to varying degrees depending on location and topography. Also, air traffic will be an increasing source of noise in the future as traffic increases at Flagstaff Pulliam Airport. The Board of Supervisors has adopted an ordinance requiring aviation easements on properties in the vicinity of the airport. The effect of such easements is primarily to give notice to property owners that they can expect air traffic over their property and associated impacts such as noise. The ordinance does not apply to Kachina Village, but does apply to Sections 17 and 18 just north of the Village, which are partially in the study area and include the KVID wetlands and Forest Highlands North. While the *Kachina Village Area Plan* has no control over highway and air traffic noise, policies can address potential noise impacts of future development proposals in the study area, and may influence decisions made by other agencies, such as the City of Flagstaff regarding airport use and expansion.

NATURAL RESOURCES AND ENVIRONMENTAL GOALS

1. To preserve the natural areas and environment that help define the character of the community.
2. To preserve and improve air quality in the community.
3. To preserve an adequate water supply for existing and future residents and businesses.
4. To preserve the high quality of all water sources in the study area, including springs, wetlands, and subsurface aquifers.
5. To preserve and improve the natural qualities of floodplains and riparian areas.

6. To preserve natural vegetation consistent with fire protection and forest health concerns.
7. To protect native wildlife populations and habitat.
8. To promote interagency cooperation and community involvement in land management decisions affecting public lands in the study area.
9. To protect scenic views that characterize the community.
10. To prevent unnecessary light pollution and preserve the dark nighttime skies.
11. To minimize noise pollution and preserve the quiet rural character of the community.
12. To promote interagency cooperation between the County, the Forest Service, and other affected agencies working with residents to accomplish natural resource goals that may not be accomplished otherwise.

NATURAL RESOURCES AND ENVIRONMENTAL POLICIES

1. Trail easements and open space shall be considered in the approval process for zone changes and development proposals.
2. The County shall help facilitate the formation of dust control districts in areas with unpaved roads if a majority of property owners agree to pay assessments to cover the costs.
3. The County shall help facilitate the formation of road paving districts for permanent dust control when there are interested property owners.
4. The Department of Community Development, in cooperation with KVFD, shall provide information to residents on the proper use of woodstoves to minimize smoke emissions.
5. Development proposals that include the drilling of new wells shall include a hydrology report identifying impacts on existing wells and springs in the vicinity.
6. Development proposals that will affect drainage on adjacent properties, roads or watercourses shall include a drainage plan addressing impacts and mitigation measures.
7. The County shall rigorously enforce the *Grading and Excavation Ordinance* in order to prevent excess runoff, sedimentation, erosion, and channel modification of natural watercourses and riparian areas.

8. The protection of ground and surface water resources shall be a high priority consideration in the evaluation and approval of all development proposals requiring Commission or Board approval.
9. Impacts on the Pumphouse Wash/Oak Creek watershed shall be considered in the review of all development proposals requiring Commission or Board approval.
10. Development proposals affecting wetlands shall require a wetlands delineation by the U. S. Army Corps of Engineers prior to consideration by the Commission and Board in order to allow the County the benefit of complete information in their development review process.
11. The County shall encourage and participate in the protection and restoration of riparian areas.
12. The preservation of existing trees and natural vegetation on private land, or appropriate mitigation measures, consistent with fire protection concerns, shall be a requirement for all developments requiring Commission or Board approval.
13. The Department of Community Development, in cooperation with KVFD, shall provide information to property owners about tree preservation and defensible space.
14. Non-emergency motorized vehicle traffic on national forest lands within the study area shall be limited to FR 237. The Forest Service is requested to implement this policy by closing all side roads off FR 237 from I-17 to Pumphouse Wash.
15. The Forest Service shall be encouraged to emphasize wildland/urban interface fire protection as the primary objective of timber management activities in the study area.
16. The Forest Service is requested to prohibit dispersed camping and campfires within one mile of Kachina Village in the interests of resource protection and urban interface fire prevention.
17. The Forest Service shall actively seek and consider community input regarding land exchange proposals in the study area.
18. KVID shall be encouraged to continue the use of treated effluent for the establishment of wildlife habitat at the constructed wetlands project. The use of effluent for habitat purposes shall have priority over requests for irrigation purposes for neighboring golf course developments.
19. The preservation of scenic views within the community and the visual impression of

Kachina Village from I-17 shall be considerations in the review of any developments requiring Commission or Board approval, including requests for variances from maximum building and sign height requirements.

20. The architectural design and signage of new commercial developments shall be aesthetically compatible with the rural and forest character of the community and natural environment consistent with the *Design Review Guidelines* established with this plan.
21. Landscaping for new commercial developments shall incorporate existing natural vegetation where possible, and shall emphasize the use of indigenous and drought-tolerant species adapted to the local environment.
22. In order to mitigate visual impacts, all utilities for new developments shall be placed underground where feasible.
23. In order to prevent light pollution and protect the aesthetic quality of the night skies of the community, the *Lighting Ordinance* shall be rigorously enforced.
24. Residential property owners shall be encouraged to install only the minimum outdoor lighting necessary for security purposes to prevent light trespass on neighboring properties.
25. Noise impacts and mitigation measures shall be a consideration in the approval process for new developments requiring Commission or Board approval.
26. ADEQ Air Quality Division is requested to establish an air quality monitoring site in Kachina Village.

LAND USE

Land use in the Kachina Village study area includes a mix of residential and commercial uses, open space and park land, public utilities, national forest, and some large parcels of undeveloped private property. This element of the plan mainly addresses land use on the private lands within the Village itself. Since the County has no zoning or land use authority on national forest lands, the use of those lands is discussed under *National Forest Issues* in the *Natural Resources and Environmental Quality* element.

Land use regulatory authority is exercised by the County through the provisions of the *Coconino County Zoning Ordinance* and the *Coconino County Subdivision Ordinance*. The *Zoning Ordinance* includes a variety of zoning classifications pertaining to different types of residential, commercial, industrial, and special purpose land use categories. Under each zoning classification, the *Ordinance* lists permitted uses and conditional uses, and specifies property development standards. The *County Subdivision Ordinance* specifies design standards and infrastructure requirements for the subdividing and development of six or more lots.

Deed restrictions or conditions, covenants and restrictions (a.k.a. CC&Rs) are another form of land use regulation. Most subdivisions, including Kachina Village, have deed restrictions, which are frequently more restrictive than zoning regulations. Being private agreements between property owners, they are enforceable through civil action by affected property owners or a homeowners association. Although people often confuse deed restrictions with zoning regulations, they are not enforceable by the County. Deed restrictions in Kachina Village have generally not been enforced by affected property owners either.

A recurring problem is complaints made by property buyers that zoning regulations are not consistent with information provided to them by sellers or real estate agents. This is often the result of confusing deed restrictions with zoning regulations. While recognizing that it is the legal responsibility of real estate agents and sellers to disclose full and complete information about the property, buyers should contact the Coconino County Department of Community Development for complete zoning information. Real estate agents are also encouraged to become more familiar with zoning regulations and the policies in this plan in order to provide their clients with full information.

Existing Land Use

The existing land use patterns in the Village are primarily the result of subdivision activity that occurred between 1965 and 1972. During that time period, the zoning was established by the Board of Supervisors as each subdivision unit was approved. A few zone changes have occurred since then. The resulting mix of land use categories includes a variety of residential uses, commercial, open space, and public and semi-public uses. The residential uses can be further categorized as agricultural residential, rural residential, single family, multiple family, mobile

home subdivision, and mobile home park. Existing commercial uses include the Pic N Run convenience market and the Village Land Shoppe real estate office. Open space is mostly comprised of large parcels of undeveloped private land, some specifically set aside as open space, and others providing open space by virtue of physical constraints that limit their developability. Public and semi-public uses include Raymond Park, the Open Bible Baptist Church, two fire stations, and KVID water and wastewater facilities.

Residential Uses

The predominant land use in Kachina Village is residential, and the various categories of residential uses are discussed here in terms of land use. Related housing issues are further addressed in the *Housing* element.

The various residential zoning classifications result in a wide range of residential uses. One effect of this variety is that different portions of Kachina Village have distinctly different neighborhood character. For example, the Agricultural Residential Zones (AR and AR-1.5) allow either site-built, mobile or manufactured homes on one acre minimum-sized lots, and allow horses and other farm-type animals, and light agricultural activities. There are three areas in the Village under this zoning: they include 11 lots on Kachina Trail (Kachina Country Club Village) in the AR Zone west of Dolan Meadow; 52 lots in the AR Zone in Unit Six on Pinon Trail and Pinon Ovi; and six parcels in the AR-1.5 Zone on Mesa Trail. All of the lots in the AR Zone are less than one acre in size making them legally nonconforming in terms of lot size. Although undersized, they were apparently approved under that zoning, because, at the time, AR was the only zone that allowed mixed site-built and mobile homes and allowed horses, which was the intended use of those lots. The six parcels in the AR-1.5 Zone on Mesa Trail were approved through two separate zone changes in 1991 and 1993, and all six parcels meet or exceed the 1.5 acre minimum lot size.

There are several unsubdivided properties in the General Zone (G), which allows the same uses as the AR Zone, except that it requires a 10-acre minimum lot size. Those properties are discussed in more detail in the subsection on *Undeveloped Private Land* since they are mostly undeveloped.

Rural Residential

The Rural Residential (RR) Zone allows essentially the same uses as the AR Zone, except mobile and manufactured homes are not permitted. There are 32 lots in Unit Seven on North and South Oraibi Ovi and Pinon Trail in the RR Zone. The area was formerly zoned AR until 1994 when a majority of the property owners petitioned for a zone change in order to prevent additional mobile homes in the area. At the time, there were 12 site-built homes, 10 mobile or manufactured homes, and 10 vacant lots. Upon approval of the change to RR, the existing mobiles became legal nonconforming uses, which can remain, but require a conditional use

permit to replace with another manufactured unit. The vacant lots may only be developed with site-built or modular homes built to *Uniform Building Code* (UBC) standards

Single Family Residential

The Residential Single Family (RS) Zones allow site-built or UBC modular homes only, and are typically applied to higher density subdivisions with minimum lot sizes starting at 6,000 square feet. The majority of residential lots in Kachina Village fall into this category, with RS-6,000 and RS-10,000 being most common. There are two lots in the RS-18,000 Zone and one zoned RS-36,000. There is a unique 16-acre area divided into four parcels in the RS-4 Zone, which requires a four acre minimum lot size.

There are several legal nonconforming mobile homes in the RS-10,000 Zone in the southwest sector of the Village. Apparently, when some of the first few units of Kachina Village were subdivided, there was some confusion with the developers about the appropriate zoning for the type of housing intended for different areas. Some areas intended by the developer to be exclusively for site-built homes were initially zoned for mixed housing. When mobile homes began appearing in areas intended for site-built homes, residents petitioned for zone changes to be consistent with the original intent. The changes were approved, but mobiles that had already been installed remain as legal nonconforming uses.

The intent of the *Zoning Ordinance* regarding nonconforming uses is that they should be phased out over time and replaced with permitted uses. Improvements to legal nonconforming mobile homes are limited to minor additions or improvements such as decks, porches and cabanas with a combined cost up to 25% of the appraised value of the nonconforming mobile home. The replacement of a legal nonconforming mobile home with another manufactured unit requires approval of a conditional use permit at the discretion of the Planning and Zoning Commission. In some cases, there may be extenuating circumstances where replacement is reasonable, such as a hardship situation where a mobile is destroyed by fire. However, in ordinary circumstances, nonconforming mobiles should gradually be eliminated from the RS Zones.

Multiple Family Residential

Multiple family residential uses are limited to the two areas in the RM-10/A (Residential Multiple Family, 10 units per acre maximum) Zone located on Kachina Trail south of Kachina Boulevard and in the vicinity of Kachina and Mesa Trails. Both areas are developed with a mix of single family and multiple family residences. The zoning allows up to four units on a single parcel as a permitted use; five or more units require approval of a conditional use permit. The existing multiple family units are all duplexes. New multiple family housing is subject to the *Design Review Guidelines* contained in this plan.

Mobile and Manufactured Homes

Mobile and manufactured housing uses occur primarily in two forms in Kachina Village, both under the Mobile Home Park (MHP) Zone. The MHP Zone applies to the 404 subdivided mobile home lots and the 84-space Kachina Village Mobile Home Park. The MHP Zone requires a minimum lot size of 5,000 square feet for subdivided lots and 4,000 square feet for spaces in a rental park. Maximum density of a mobile home park is ten units per acre. The minimum size of a mobile home in the MHP Zone is 12 feet by 50 feet. County ordinances and building codes do not specify a maximum age for mobile homes. In some areas, deed restrictions may require doublewides, but such restrictions are not enforceable by the County. As mentioned previously, mobile homes are also permitted in the AR Zone, and there are several legal nonconforming units in the RS-10,000 and RR Zones.

There are three vacant unsubdivided parcels in the MHP Zone comprised of a total of approximately nine acres. One is a five acre parcel on Tovar Trail east of the mobile home park. It is currently undevelopable due to a lack of water and wastewater connections. It was formerly a portion of the mobile home park property in 1987 when KVID assigned a certain number of water and wastewater assessments to each parcel in the district. The owners at that time used all of the assessments for the mobile home park, and split off the excess five acres as a separate parcel. The five acre parcel, with no utility connections available, was subsequently acquired by a new owner. It is, therefore, undevelopable until water and wastewater service becomes available. There are also two vacant two acre parcels bordered by Tolani and Tishepi Trails with five assessments each.

Planned Residential Development

The Planned Residential Development (PRD) Zone is a special purpose zone intended to facilitate greater flexibility and creativity in residential development than is generally possible under conventional zoning. It is also intended to promote more economical and efficient land use while providing a variety of housing choices, a high level of amenities, and preservation of open space. At least 35% of the total area of a planned development must be comprised of open space. The *Zoning Ordinance* allows a great amount of flexibility in lot sizes and densities within the parameters of certain property development standards.

Forest Highlands Unit 5, which is in the Kachina Village study area, is in the PRD Zone. Ten acres is the minimum site area for a PRD. Some of the undeveloped parcels in Kachina Village currently in the General Zone could possibly be developed under the PRD Zone, which would allow clustering of smaller lots on developable portions of the property while preserving sensitive riparian areas and wetlands.

Commercial Uses

There are approximately 12 acres of commercially zoned land located at the entrance to the Village. The zoning is CG-10,000 (Commercial General, 10,000 square foot minimum lot size).

The Pic N Run is located on a 0.65 acre site (28,314 square feet) on the south side of Kachina Boulevard. The Village Land Shoppe is located on a 0.15 acre (6,500 square feet) site at the northeast corner of Kachina Boulevard and Kachina Trail. A 3.48 acre parcel north of the Village Land Shoppe is occupied by an abandoned store building and several rental cabins. An 8.07 acre parcel north of Raymond Park is undeveloped except for a small pond, and is almost entirely in a floodplain/wetland area.

The 1996 community survey asked respondents if they were in favor of additional commercial development, and if they were in favor of zoning more land for commercial use. It also asked them to rate their preferences for both permitted and conditional uses for the existing commercially zoned land. Over 70% of respondents were opposed to any additional commercial development, and 84% were opposed to zoning more land for commercial use. However, responses to questions about preferences for different types of commercial uses showed moderate support for businesses serving the needs of the community. For example, about 40% favor a restaurant, library, school, or pre-school/daycare center on the existing commercial land.

Other businesses where greater than 50% of respondents were neutral or in favor include general retail stores, medical/dental/health facilities, a bakery, veterinary clinic, church, or recreational club. In contrast, businesses that were not seen as providing services to Kachina Village residents were opposed by an overwhelming number of respondents. Examples include warehouses, drive-in restaurants, auto sales or services, and hotels and motels.

Based on the survey results and other conditions that limit the developability of the existing commercial land, any new commercial development should be primarily neighborhood-oriented light commercial uses. The survey also indicates strong support for architectural guidelines and County control over the hours of operation of commercial developments. Hours of operation can be specified by the Planning and Zoning Commission for conditional uses. All new commercial uses and substantial expansions or modifications of existing commercial uses are subject to the *Design Review Guidelines* contained in this plan. Additional commercial zoning would not be consistent with the desires of the residents or the predominantly residential character of the community. Heavy commercial uses and tourist-oriented or highway-oriented businesses are more appropriately located in the city.

Industrial Uses

There is currently no industrially zoned land in the study area. Industrial uses are generally not compatible with the predominantly residential character of Kachina Village. Such uses should more appropriately be located within the City of Flagstaff where more adequate support services, public utilities, transportation infrastructure, and land use patterns exist to support such use.

Public and Semi-Public Uses

Existing public and semi-public uses include Raymond Park, the Open Bible Baptist Church, two fire stations, and KVID facilities. Such uses require conditional use permits in any of the residential or commercial zones. Future expansion of existing facilities or development of new public and semi-public uses should be designed to be compatible with the character of existing neighborhoods and should include mitigation measures, if necessary, to minimize possible negative impacts. In order to ensure compatibility, such uses are subject to the provisions of the *Design Review Guidelines* contained in this plan.

Open Space

The 1996 community survey shows that residents are highly concerned about preserving open space. Seventy nine percent of survey respondents think that preserving open space is important. Maintaining the existing low density zoning as a way to preserve open space is favored by over 75% of respondents, and purchasing easements to preserve open space is favored by 62%. However, less than 50% are in favor of paying for the purchase of easements or park lands through Special District assessments. Over 85% think that the provision of trail easements and open space should be considered in the approval process for zone changes.

In the Kachina Village study area, there are four categories of open space consisting of: 1) large parcels of undeveloped private land within the Village; 2) public lands surrounding the community; 3) Raymond Park; and 4) the KVID wetlands. Public lands surrounding the community and the KVID wetlands are addressed in the *Natural Resources and Environmental Quality* element. Raymond Park is addressed under *Parks and Recreation* in the *Community* element. Undeveloped private land is discussed below.

Undeveloped Private Land

Large parcels of undeveloped private land within the Village currently provide significant amounts of *de facto* open space. Whether or not the private parcels will continue to serve as open space will depend on future development proposals consistent with the policies of this plan, as well as physical constraints and infrastructure limitations. Comments received in the 1996 community survey indicated that residents prefer that these properties remain undeveloped. However, it should be acknowledged that private property cannot be required to serve as public open space without due compensation to the property owner. Such restrictions would likely be ruled by the courts to be an unconstitutional governmental “taking” of private property. However, development may be limited by infrastructure limitations, physical constraints, and other considerations. Development constraints are discussed in more detail elsewhere in this report.

Large parcels of undeveloped land include a 57-acre parcel known as the Dolan Meadow, two

other parcels totaling 14 acres on the periphery of the meadow, and a 12 acre parcel south of the mobile home park bordering Tovar Trail. These parcels are all in the G (General) Zone, which allows low density residential development on ten acre minimum size lots. The Dolan Meadow parcels are also located in the FPM (Floodplain Management Overlay) Zone, which places further restrictions on development of the property. Other parcels in the G/FPM Zone include two parcels totaling 45 acres along Pumphouse Wash on Pinon Trail.

There are also two undeveloped parcels amounting to approximately eight acres in the OS (Open Space) Zone in Kachina Country Club Village (Unit One). They were intended to be golf course fairways in the original development plan, but the golf course was never developed. The two parcels are currently owned by two different homeowners groups for open space purposes. There are 16 acres located in the RS-4 (Residential Single Family, four acre minimum lot size) Zone in the central portion of the Village bordered by Kachina and Kona Trails. The 16 acres are divided into four parcels, only one of which is currently developed with a residence.

Other large parcels of undeveloped land in the community include a 16-acre parcel in the G Zone owned by KVID next to the wastewater treatment plant off Pinon trail; a 36-acre parcel without legal access north of the mobile home park in the G Zone; two parcels in the vicinity of Kachina Boulevard and Kachina Trail totaling approximately 11.5 acres in the CG-10,000/FPM (General Commercial/Floodplain) Zones; two parcels totaling four acres in the MHP (Mobile Home Park) Zone bordering Tolani and Tishepi Trails; and a five-acre parcel in the MHP Zone east of the existing mobile home park on Tovar Trail.

Again, it should be reiterated that the properties described above currently serve as “open space” by virtue of the existing low density zoning, utility infrastructure limitations, and certain physical and topographic constraints that limit their developability. Property owners have a constitutionally protected right to reasonable use of their property. Such use may be limited by zoning, because of infrastructure limitations, physical constraints, and other valid considerations in accordance with the police power of the County in the interest of public health, safety and welfare. However, the provision of public open space is not, by itself, a constitutionally valid justification for limiting development.

A listing of the large undeveloped parcels in the study area is included in Appendix B.

Design Review Overlay Zone

In order to protect and enhance the visual and environmental qualities of certain areas, the Board of Supervisors may adopt a Design Review Overlay (DRO) Zone. Each DRO Zone in the County includes specific guidelines tailored to the unique character of the area that it is applied to. The *Design Review Guidelines* address exterior architectural style, building materials, textures, colors, outdoor lighting, and signage, and are applicable to all multiple family, commercial, industrial, and public and semi-public uses. A public hearing before the Planning

and Zoning Commission is required prior to the establishment of such uses in order to ensure compliance with the DRO requirements.

According to the 1996 community survey, approximately 70% of respondents were in favor of design guidelines to be applicable to commercial developments in Kachina Village. The response indicates a preference for the use of natural building materials and architectural design consistent with the forest environment and established character of the community. The *Design Review Guidelines* are contained in Appendix C of this plan.

Development Constraints

Except for the existing subdivided lots, future development in the Village is limited by a number of factors. Development constraints include physical limitations imposed by natural features such as floodplain and wetland areas, and steep slopes, as well as infrastructure limitations such as roads, and the capacity of the community water and wastewater systems. Regulations pertaining to development in floodplains and wetlands are discussed in the *Natural Resources and Environmental Quality* element of this plan. Steep slopes are addressed by the *Coconino County Subdivision Ordinance*, which requires that each lot of a subdivision of six or more lots have a usable building site with slopes no greater than 25% (this does not apply to minor land divisions of less than six lots).

Transportation infrastructure limitations, such as substandard roads, represent a possible constraint on future development in some portions of the community. Depending on the intensity of future proposed developments, road improvements may be necessary, at the developer's expense, in order to approve certain projects.

Virtually no development is possible without water and wastewater service. There are a few parcels of land in the study area that are not within the boundaries of the KVID service area. Those properties would have to annex into the district to obtain water and sewer service or pursue other alternatives. There are also a few parcels within the district that either do not have any water and wastewater connections available or do not have enough to develop the property to its full potential under the existing zoning. Conversely, there are some properties that have more equivalent connections than could be used on the property, because of other development constraints such as floodplains, wetlands or slopes.

In situations where properties are in the district, but have no connections available, it is usually because all of the available connections were utilized for development of a portion of the property, and then the excess property was split off and sold without any utility connections. One example of this is the five acre parcel in the MHP Zone discussed above. There are at least two other properties in the RM-10/A Zone in a similar situation.

Home Occupations and Cottage Industries

For many different reasons, a significant number of residents of the County either desire or need to generate an income by working at home. In response to this need, the *Zoning Ordinance* contains provisions to allow home occupations and cottage industries under certain conditions while protecting the integrity of residential neighborhoods.

Home occupations, as defined by the *Zoning Ordinance*, are permitted in all of the residential zones upon issuance of a home occupation permit by the Department of Community Development. Under the criteria specified in the *Ordinance*, home occupations are conducted entirely within the home, do not involve any outside employees, and do not change the residential character of the property. Home occupations may not cause any situation that would be hazardous to neighboring properties or result in any noxious emissions or outdoor storage of materials. Examples of home-based businesses in this category could include a wide variety of activities where a resident conducts business via telephone, fax, computer or postal service without requiring customer traffic at the home. The only example of a home-based business that does not require a home occupation permit, because it is listed as a permitted use in all residential zones, is day care for six or fewer children.

Cottage industries are a more intensive type of home occupation that may be approved at the discretion of the Planning and Zoning Commission under a conditional use permit in the G, AR and RR Zones. Unlike home occupations, cottage industries may employ up to three outside employees, and may be conducted in a separate accessory building. A limited amount of customer traffic may be permitted, but the basic residential character of the property must be preserved. Other criteria are designed to prevent negative impacts on the surrounding neighborhood, and the approval process involves a public hearing with direct notification provided to all property owners within 300 feet. One cottage industry was approved in 1996 in the RR Zone in Kachina Village for a catering business, but the use has not yet been established. Initial approval may be for a time period up to three years with an application for renewal required if the use is to be continued beyond that time.

The *Zoning Ordinance* also contains provisions for bed and breakfast establishments as a conditional use in some residential zones. In Kachina Village, such use is possible, with Planning and Zoning Commission approval, in the G, AR, RR, RS-36,000, RS-4, and RM-10/A Zones. The intent of the *Ordinance* is that the bed and breakfast use is to be incidental to the primary use of the structure as a dwelling. The provisions limit the number of guests that may be accommodated at any one time to five, and the number of bedrooms available for rental to two. There have been no applications for bed and breakfasts in Kachina Village, but such applications have sometimes generated neighborhood opposition in other areas of the County. Although the provisions of the *Ordinance* limit the use to a low-key activity, some residents fear the “commercialization” of their residential neighborhoods and associated impacts such as increased traffic.

Zoning Enforcement

It is unlawful to conduct or establish any land use in violation of the provisions of the *Zoning Ordinance*. A zoning enforcement officer is responsible for investigating zoning violations and administering the enforcement provisions of the *Ordinance*. Since there is only one enforcement officer for the entire County, zoning enforcement is pursued primarily as a response to complaints. However, the enforcement officer may also take the initiative to pursue obvious violations, particularly if they entail serious threats to public health and safety.

In Kachina Village, the most common violations include excessive outdoor storage of miscellaneous materials and inoperable vehicles, auto repair and other businesses conducted in residential zones, and temporary occupancy of travel trailers. Home occupations that would otherwise be legitimate, are often violations simply because no home occupation permit has been obtained.

The enforcement process usually begins with a complaint, followed by a field investigation by the zoning enforcement officer to confirm the violation. A letter is sent to the property owners informing them of the violation, and stating a deadline for compliance. If voluntary compliance is not achieved, a hearing is scheduled before the zoning hearing officer. The hearing officer is authorized to impose monetary fines up to \$750 per day for each day that the violation exists.

Animal Control

The most prevalent animal control issues in Kachina Village include the keeping of horses and other farm-type animals, dogs running at-large, and excessive noise generated by barking dogs. In addition to the *Zoning Ordinance*, which regulates the keeping of certain types of animals, the County has also adopted a leash law and a *Barking Dog Ordinance*.

The keeping of horses and other farm-type animals is possible under certain limitations in Kachina Village in the G, AR, AR-1.5, RR, RS-18,000, RS-36,000, and RS-4 Zones. A minimum of one acre is required for the keeping of such animals, and three may be kept on the first acre with one additional animal for each additional half acre. They must be kept at least 100 feet from any neighboring residence, and are subject to County Health Department requirements regarding disposal of manure and other animal control regulations. Animal husbandry projects conducted primarily for educational purposes through organizations such as 4-H or Future Farmers are exempt from the 100 foot setback and number of animals per acre, and are permitted in any zone.

In Kachina Village, most of the lots in the AR, RR, and RS-18,000 Zones are less than one acre in size, and, therefore, do not allow horses. The zoning enforcement officer occasionally receives reports of horses being kept in areas where they are not permitted, such as the RS-6,000 Zone and even the MHP Zone, but it is not a very prevalent problem.

Dogs running at-large and excessive barking are the most commonly reported animal control problems. The County has adopted a leash law and a *Barking Dog Ordinance*, both of which are administered by the Animal Control Division of the County Health Department. The leash law requires that dogs be restrained at all times, whether on the property or while out walking. The *Barking Dog Ordinance* is intended to address the excessive and unrestrained barking of dogs.

The *Barking Dog Ordinance* may be enforced by either the Animal Control Division or the County Sheriff's Department. The Animal Control Officer or Sheriff's Deputy may issue citations to the offending dog owner or suggest mediation. The Community Relations Unit of the Arizona Attorney General's Office offers a free mediation service to help resolve such disputes. If the dog owner does not agree to mediation, a complaint petition can be filed at Justice Court for consideration and action by the Justice of the Peace. The judge may impose fines up to \$500, and may award court costs to the prevailing party.

LAND USE GOALS

1. To preserve open space to protect natural resources, preserve scenic beauty, and provide recreational opportunities.
2. To enhance the visual appearance of the community.
3. To preserve and enhance existing neighborhood character.
4. To provide opportunities for a mix of land uses that are beneficial to the residents of Kachina Village.
5. To provide a wide range of residential uses to accommodate all segments of the population.

LAND USE POLICIES

1. Proposed zone changes shall be approved only if consistent with the established character of the surrounding neighborhood.
2. Clustering of residential lots through the PRD Zoning provisions shall be encouraged for properties encumbered by floodplains or wetlands in order to preserve open space and sensitive natural resources.
3. For proposed residential zone changes, minimum lot sizes shall be determined in conjunction with the overall density allowances described in policy 4 below. In no case shall lot sizes average less than 50% larger than the smallest adjacent zoning classification.

4. Future residential developments shall be limited to a maximum density of one unit per net developable acre. "Net developable acre" shall be defined as the gross acreage of the property less that portion in the 100-year floodplain and/or officially designated wetlands, and less that portion where slopes exceed 25%. A density bonus of one additional residential unit may be allowed for each acre of dedicated and accepted public open space. "Officially designated wetlands" shall be defined as determined by the U. S. Army Corps of Engineers.
5. Zone changes to allow greater density than the current zoning allows are not guaranteed for every undeveloped parcel and may be denied if the Board of Supervisors determines that such denial would be more consistent with other goals and policies of the plan.
6. Multiple family development shall be designed to be compatible with the surrounding neighborhood, and shall conform to the *Design Review Guidelines* contained in this plan.
7. Mobile/manufactured home developments shall conform to the site development requirements and performance standards of Section 13.1, *Coconino County Zoning Ordinance*.
8. Legal nonconforming mobile homes shall be replaced with site-built or UBC modular homes except where serious extenuating circumstances exist to justify replacement with another manufactured unit upon approval of a conditional use permit.
9. Commercial development shall be neighborhood-sensitive and consistent with the community's desires as expressed by the 1996 community survey results.
10. All new commercial development shall conform to the *Design Review Guidelines*.
11. There shall be no net increase in commercially-zoned land in the study area. Additional commercial zoning shall not be approved unless in conjunction with the down-zoning of property currently zoned commercial.
12. Industrial zoning shall not be approved in the study area.
13. Proposed public and semi-public uses shall conform to the *Design Review Guidelines*, and shall include adequate landscaping, buffering, and other site improvements to mitigate possible impacts on the surrounding neighborhood.
14. New developments shall be required to pay their own way for any required infrastructure improvements, and shall not result in any undue financial burden on existing residents or the County.

15. New development requiring Commission or Board approval shall not allow construction in floodplains or wetlands.
16. Proposed cottage industries shall only be approved if compatible with the surrounding neighborhood, and if they do not place an undue burden on roads, utility infrastructure or fire protection.
17. Bed and breakfast proposals shall be approved only if compatible with the surrounding neighborhood, and shall conform to the provisions of Section 14.4, *Coconino County Zoning Ordinance*.
18. All provisions of the *Zoning Ordinance*, particularly with regard to illegal businesses in residential areas and outdoor storage problems, shall be rigorously enforced, both as a response to complaints and on the proactive initiative of the zoning enforcement officer.

APPENDIX C

DESIGN REVIEW GUIDELINES

Purpose

In order to protect and enhance the visual and aesthetic qualities of Kachina Village, consistent with the goals of this plan and with the desires of the community as expressed by the 1996 community survey, a Design Review Overlay Zone is established for all new multiple family, commercial, industrial, and public or semi-public uses within the study area. Design review guidelines are established to ensure that such development is architecturally and aesthetically compatible with the natural forest environment that characterizes Kachina Village. The design guidelines are intended to integrate the built environment with the natural terrain and landscape, and to ensure a visually harmonious and aesthetically pleasing community.

The design guidelines are not intended to dictate a single architectural style for Kachina Village, but to provide a direction for creative design consistent with the natural forest and mountain environment in which the community is situated. The guidelines do not apply to single family residential construction. However, by identifying certain unifying design principles that characterize Kachina Village, and applying those principles to future multiple family, commercial, and public and semi-public construction, the visual and physical identity of the community will be preserved and enhanced.

The architectural design theme of the first buildings planned by the developers of Kachina Village could perhaps be described as “rustic mountain contemporary.” Subsequent construction by builders and homeowners included a variety of architectural styles ranging from simple rustic vacation cabins to more sophisticated contemporary designs, as well as common suburban ranch styles and others. In spite of the wide variety of residential styles, however, there are a number of common design elements that tend to characterize the community and relate to its forest setting. Some common elements include the generous use of natural building materials such as logs, wood and native rock. Coloring and building finishes, for the most part, tend to be muted and natural earth-tone colors that reflect the colors found in the natural vegetation, rocks and soils in the area.

Requiring such design elements for new multiple family, commercial, public and semi-public uses will help to integrate such uses into the community and into the natural setting in such a way that they blend with and enhance existing neighborhood character.

Architectural Style

1. Architectural style shall be consistent with the rural forest environment of Kachina Village. Modernist, urban-oriented or whimsical designs that have no relationship to the established character of the community shall not be approved.

2. The scale and mass of buildings shall be in balance with natural features of the landscape, and not dominate the natural setting.
3. Architectural features which serve to reduce the apparent mass of a building may be employed, such as telescoping gable ends, variations in roof forms, and the use of dormers and clerestories.
4. Existing vegetation and landforms shall be incorporated into architectural design strategies.
5. Some types of uses, such as multiple family housing, may require the clustering of smaller buildings rather than a single massive structure in order to maintain a compatible scale with the surrounding neighborhood.
6. Projects comprised of multiple buildings shall employ creative site planning techniques, such as offset or staggered building footprints, to avoid a barracks-like symmetrical appearance.
7. Maximum building height shall be 35 feet and two stories.

Materials and Colors

1. Building materials and colors that blend with the natural environment should be emphasized.
2. Natural materials such as wood, logs and native rock are recommended for integrating structures into the forest setting. High-quality natural-appearing synthetic materials or manufactured materials such as synthetic rock, split-faced block, log siding, concrete tile shingles, and other such materials are acceptable alternatives if it can be demonstrated that the proposed application would result in an appearance consistent with these guidelines.
3. Heavily textured materials or design elements that create shadow patterns are encouraged. Lap siding, board and batten, and rough-sawn wood siding materials create visually interesting shadow patterns and textures consistent with rustic design principles.
4. Architectural color schemes shall be consistent with the earth-tone palette of the natural landscape. Muted, natural tones should be emphasized. The use of predominantly glossy, bright or “unnatural” colors that contrast with the surrounding environment shall not be approved.
5. Roofing materials shall meet the same color requirements as the rest of the building, and bright, highly reflective roofing shall not be permitted.

Site Design

1. Development shall be designed to fit the natural existing landforms as much as possible without resorting to radical grading, terracing, filling or other alteration of existing terrain. Where cuts and fills are required, they shall be landscaped or otherwise treated to blend with adjacent natural terrain to the greatest extent possible.
2. Preservation of existing trees and vegetation is encouraged to the greatest extent possible. Site plans shall indicate all existing trees and plant material that will be retained, as well as existing trees that will be removed.
3. Detailed landscape plans shall be required for Planning and Zoning Commission review for all DRO applications. Landscaping shall emphasize xeriscape techniques using indigenous plant species and similar species adapted to the local environment. Exotic plants that could escape to the surrounding area and displace native vegetation shall be prohibited.
4. All required landscaping shall include a mix of landscape materials including a variety of plant materials, sizes and types, as well as hardscape materials such as crushed rock, boulders, fencing, etc., designed to blend with native materials. All landscaping shall be provided with a low-flow irrigation system sufficient to establish and maintain plants in a healthy condition.
5. In addition to required street frontage landscaping, all parking lots shall include additional landscaping around the periphery and interior of the lot in order to break up impermeable surface coverage. This may include landscaped islands within the lot and the clustering of parking spaces rather than long expanses of pavement which results in an urban appearance.
6. All mechanical equipment, utilities, dumpsters, and service areas shall be screened from view with walls, fences, or landscaping consistent with the architectural and landscaping requirements of these guidelines. All utilities shall be underground.
7. Adequate buffering shall be provided between uses subject to these design guidelines and adjacent single family residential development. Such buffering may consist of landscaped berms, fencing or other methods approved by the Planning and Zoning Commission.
8. All undeveloped site area shall be maintained in a natural condition or landscaped in a manner that complements the natural surroundings.
9. Clearly delineated pedestrian pathways shall be incorporated into site design where appropriate.

Signs

1. All provisions of Section 16, *Signs (Coconino County Zoning Ordinance)* shall be applicable except as modified herein.
2. Signs shall be subject to the same requirements of design, materials and colors specified above. A detailed sign plan shall be submitted for Planning and Zoning Commission review for all DRO applications.
3. Signs shall not be attached to or painted on natural objects such as trees and rocks.
4. Lighted signs shall be internally illuminated, except that signage constructed of natural materials may be lighted with fully shielded, downward directed fixtures. Internally illuminated signs shall be designed with an opaque background and translucent letters and symbols. Lighted signs shall not remain lighted after normal business hours or after 10 p.m. for a non-business use.
5. Internally illuminated canopy signs shall include the entire illuminated portion of the canopy in the sign size calculations.
6. Temporary banners and other temporary or portable signage shall not be permitted except for real estate “open house” signs identifying property which is for sale or lease.
7. Low profile signage shall be encouraged. Variances for sign height, area, or number shall generally not be approved.
8. The base of freestanding signs shall be located in a planter box or landscaped area.

Lighting

1. All outdoor lighting provisions of Section 17, *Lighting (Coconino County Zoning Ordinance)* shall be applicable except as modified herein.
2. All outdoor lighting in the study area shall conform to the requirements of Zone II, as specified in Section 17. A detailed lighting plan shall be submitted for Planning and Zoning Commission review for all DRO applications.
3. All light poles and fixtures shall be compatible with the architectural style of the development consistent with these design guidelines.
4. Light poles shall be in scale with the surrounding landscape and development, but shall not exceed 15 feet in height.

5. All light fixtures shall be fully shielded and directed so that direct illumination is contained on-site.
6. All outdoor lighting for uses subject to these design guidelines shall not remain lighted after normal business hours or after 10 p.m. for a non-business use unless specifically approved otherwise by the Planning and Zoning Commission.